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Purchasing Power of Workers in the U.S.S.R.

Unemployment and Job Mobility

Collective Bargaining Coverage of Factory Workers

UNITED STATES DEPARTMENT OF LABOR

BUREAU OF LABOR STATISTICS

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Monthly Labor Review

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

LAWRENCE R. KLEIN, *Editor-in-Chief (on leave)*
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The Labor Month in Review

TWO YEARS AFTER APPOINTMENT by Federal District Court Judge F. Dickinson Letts, the Teamster board of monitors was nearly strangled by internal difficulties. At the end of March, Judge Letts replaced Lawrence T. Smith, who has succeeded Godfrey P. Schmidt as monitor representative for the dissident members, with Terence F. McShane, a former FBI agent who has done some work on Teamster cases. Smith charges that Monitor Chairman Martin F. O'Donoghue is primarily interested in the removal of Hoffa from the Teamster presidency. His own position is that the board should be emphasizing more fundamental changes, since deposing Hoffa would merely confer leadership on others in the present Teamster hierarchy without any change in the union's operating practices. He apparently has the support of the majority of the original group of dissident members; they voted late in March to release Godfrey P. Schmidt as their counsel. Schmidt shares O'Donoghue's views and a minority faction is standing by him. Smith said he would ask for a court hearing on his removal.

Meanwhile, Hoffa nominated William E. Bufalino to replace Daniel B. Maher, the union's monitor on the board, whose resignation on account of illness Letts has so far refused to accept. Bufalino is head of Local 985 in Detroit, which was described by Senator McClellan last year as "a leech preying upon working men and women to provide personal aggrandizement for Mr. Bufalino and his friends."

On March 25, Hoffa filed a motion seeking O'Donoghue's removal on the ground that he was prejudiced and his continued service would violate judicial and professional ethics. The Teamster head also asked Judge Letts to direct the calling of a union convention and said the union was willing to let an outside agency selected by the court supervise the conduct of the convention and the elections of delegates. On March 30, Hoffa asked the court to cancel his trial on the monitors' charges of mishandling of union funds, arguing that the Labor-Management Reporting and Disclosure Act "deprives the court of jurisdiction it may have had" because it vests discipline of union officers in the hands of rank-and-file members.

AFTER 2 MONTHS OF NEGOTIATIONS, the Amalgamated Clothing Workers won a 17.5-cent-an-hour wage increase for 125,000 workers in the men's clothing industry, effective June 1. The 3-year contract with the United States Clothing Manufacturers Association also provides for higher hospital, surgical, and insurance benefits, which management estimated would cost about 4 cents an hour.

In the first aircraft settlement of the collective bargaining season, Local 1987 of the Machinists union voted to accept a 2-year contract covering about 8,400 workers at Republic Aviation Corp.'s plant at Farmingdale, L.I. According to the IAM, the agreement provides wage increases and other benefits averaging 19.5 cents an hour and continuation of the cost-of-living adjustment clause.

The Screen Actors Guild ended a month-old strike against major movie producers by agreement on a 3-year contract that gives the actors a share of receipts from television display of movies begun after January 31, 1960, and establishes health and welfare and pension funds. The Bethlehem shipyard strike of about 18,000 Marine and Shipbuilding Workers went into its third month, as the National Labor Relations Board asked the Federal District Court in Boston to enjoin Bethlehem from refusing to bargain in good faith and the union from mass picketing.

Arbitration hearings on the wage controversy between the Brotherhood of Locomotive Engineers and rail management began on April 5. The 11 nonoperating rail unions had refused arbitration of their wage case the week before. Under the Railway Labor Act, if either party refuses arbitration and a major strike is threatened, the National Mediation Board may recommend that the President appoint an emergency factfinding board. In the meantime, a BLE member said the union had given him a choice of resigning as local chairman or facing disciplinary action for his advocating, in negotiations with the Louisville and Nashville Railroad, a plan for the ultimate elimination of firemen from freight and yard locomotives operated by that line. He had proposed a formula similar to the one agreed upon in 1958 by the

Canadian Pacific Railroad and the Brotherhood of Locomotive Firemen and Enginemen.

A Presidential board's hearings on a dispute between Pan American World Airways and 5,000 clerks, agents, and freight handlers represented by the Brotherhood of Railway Clerks were set for April 18. The main issues were wages and union demands for improved vacation, sick leave, and pension and welfare contributions. Local 802, American Federation of Musicians, currently bargaining with the New York Philharmonic Orchestra, announced that it "will exert every effort" to obtain a contract guaranteeing year-round employment for its members in the Philharmonic and Metropolitan Opera orchestras. The Philharmonic's current season is 30 weeks, while the Metropolitan's is 32, plus an additional 4 weeks of paid rehearsals.

ANOTHER SPLIT in the seams of the AFL–CIO appeared in late March when Plumbers' President Peter T. Schoemann took his union out of the Industrial Union Department. Schoemann contended that in February IUD President Walter Reuther asked him to leave a department meeting on jurisdictional disputes between the building trades and the industrial unions, and he said that his union "can no longer retain this affiliation if at any time we are excluded from exercising our proper voice and consultation in the department's councils."

The Newark Morning Ledger Co. sued for an injunction and $6 million in damages from six unions in the Federal District Court in Newark. The complaint alleged that the unions formed a committee to organize slowdowns and work stoppages in support of a 5-month strike against The Oregonian of Portland, Ore., a fellow member of the Newhouse chain.

THE HOUSE WAYS AND MEANS COMMITTEE rejected, 17 to 8, the Forand bill to add health insurance to the old age, survivors', and disability provisions of the Social Security system. Secretary of Health, Education, and Welfare Arthur S. Flemming testified before the committee that the Administration was trying to devise a system under which insurance would be available on a voluntary basis. Organized labor, which has been a major supporter of the bill, still hopes to get health insurance provisions added to this session's social security legislation when it reaches the floor of the Senate. The House Labor Standards subcommittee continued hearings during March on extension of coverage of the Fair Labor Standards Act and raising the minimum wage to $1.25 an hour. AFL–CIO President George Meany testified that he would not be opposed to raising the minimum in two steps as proposed in Senator John F. Kennedy's bill.

New York State enacted a $1-an-hour minimum wage law that covers nonprofitmaking as well as profitmaking organizations. New York's former wage law provided for the setting of minimum wages by wage boards in certain industries. Other legislation raised the State's maximum workmen's compensation and sickness disability and unemployment benefits from $45 to $50 a week. A new feature added to the unemployment insurance law requires a person who quits a job "without good cause" to get a second job and work at least 3 days a week for 4 weeks or earn at least $200 before he can become eligible for jobless pay.

THE U.S. SUPREME COURT, in a case which arose before the 1959 Taft-Hartley amendments, held that peaceful picketing for recognition by a minority union was not an unfair labor practice. The Court overruled the NLRB, which had found that Teamster picketing of Curtis Bros., Inc., after the union had lost a representation election, constituted restraint and coercion of employees. If the NLRB's position were sustained, the Court noted, the Board might disregard the safeguards of peaceful picketing surrounding the 1959 law's proscription against organizational and recognition picketing in certain situations.

AFRICAN WORKERS stayed away from work in protest against the shooting of demonstrators who defied the Union of South Africa's law requiring nonwhites to carry passbooks. Reports estimated that five out of six Negro workers in Capetown, the center of the rebellion, observed the boycott at its height, although policemen used clubs, whips, and guns in an effort to drive them back to work.

In Western Europe, the six-nation European Parliament authorized the Coat and Steel Community to continue and liberalize retraining and relocation assistance to workers who lose their jobs "due to profound changes in marketing conditions for coal and steel."

Collective Bargaining Coverage in Factory Employment, 1958

H. M. DOUTY*

THE EXTENT to which wages and other conditions of employment are determined through the collective bargaining process is a matter of widespread interest. For some segments of employment, little precise information is available on collective bargaining coverage. The present article provides estimates of the coverage of production and related workers[1] in manufacturing by collective bargaining agreements as of 1958. The estimates are a product of a Bureau of Labor Statistics survey of the composition of payroll hours in manufacturing, the basic results of which have been published.[2]

The sample design utilized in the survey permits the presentation of estimates of the collective bargaining coverage of factory workers for the country as a whole, four broad regions, and major industry groups.[3] Less precise estimates are also given for industry groups by region. The tabulations are based on the response to the following inquiry on the survey questionnaire: "Do collective bargaining agreements cover a majority of your production and related workers?" No distinction can be made as to whether contract coverage involved affiliated (i.e., AFL–CIO) or unaffiliated unions, subordinate bodies of national unions or unions confined to single establishments or companies, or within establishments, one or more unions.

The shorthand expression "contract coverage" refers always to situations in which at least a majority, although not necessarily all, of the workers were reported as covered by collective bargaining agreements. The absence of majority coverage may mean either that no workers were covered by agreements or that a minority were covered. In the aggregate, situations involving minority coverage are believed to affect comparatively few workers.

Collective Bargaining Coverage

As table 1 indicates, the employment of production and related workers in manufacturing averaged 11.7 million in 1958. Two-thirds of these workers (7.8 million) were in establishments in which a majority of the plant workers were covered by collective bargaining agreements. Almost 3.9 million factory workers were in establishments in which collective bargaining coverage was either nonexistent or extended to only a minority of the workers.

Among the four major regions into which the country was divided for the purposes of this study, collective bargaining coverage for factory workers was most extensive (76.5 percent) in the North Central States, followed by the West (72.6 percent), and the Northeast (67.9 percent). Only in the South were less than half (46.1 percent) of the factory workers employed in plants where a majority of the workers were covered by collective bargaining agreements. In absolute terms, however, more factory workers in the South than in the West were subject to contract coverage (1.2 million as against 0.8 million). Three-fourths of the factory workers under collective bargaining agreements were in the Northeast and North Central regions.

Table 1 and the accompanying chart also show contract coverage by major industry groups as defined by the Standard Industrial Classification

*Of the Division of Wages and Industrial Relations, Bureau of Labor Statistics

[1] The definition of production and related workers conforms with that used by the Bureau in its production-worker employment series. Briefly, it includes working foremen and all nonsupervisory workers engaged in nonoffice functions; the term is used in this article interchangeably with factory workers.

[2] Composition of Payroll Hours in Manufacturing, 1958 (preliminary release, January 1960). This survey establishes ratios between hours of paid leave and total man-hours paid for in manufacturing. A summary article will appear in a forthcoming issue of the Monthly Labor Review.

[3] Data were obtained from a sample of approximately 6,500 establishments selected in accordance with industry, location, and establishment size. Data for each sampling unit were weighted to reflect its probability of selection, with further adjustment to average employment for 1958, as reported in the Bureau's monthly employment series.

Manual.[4] The proportion of workers in establishments with labor-management agreements covering a majority of their workers ranged by industry group from 30.1 percent (textile mill products) to 89.8 percent (products of petroleum and coal). Contract coverage of 80 percent or more of the workers was found in five industry groups—ordnance, products of petroleum and coal, rubber products, primary metals, and transportation equipment. These industry groups accounted for about one-fourth of the workers subject to labor-management agreements. Nine industry groups, in which agreement coverage related to 60 but less than 80 percent of factory employment, accounted for one-half of the manufacturing workers in establishments with labor-management contract coverage within the meaning of this study. Six industry groups, each with contract coverage of 40 but less than 60 percent, accounted for about one-fifth of the workers under contracts. Finally, textile mill products, the only industry group in which less than 40 percent of the workers were subject to labor-management agreements, accounted for the remaining 3 percent of the workers with collective bargaining coverage.

The incidence of contract coverage may vary within a major industry group, which of course consists of a number of more narrowly defined industries. Such variations were not measured in the present survey but some information on this point is available to the Bureau, primarily from its occasional wage studies by industry. For example, the present survey shows that about 60 percent of the workers in apparel and other finished textile products were in establishments where a majority of the workers were covered by collective bargaining agreements. Actually, contract coverage in certain component industries, such as work shirts, was less than 60 percent; in others, such as men's and boys' suits and coats, it was

[4] Bureau of the Budget (1945).

Labor-Management Contract Coverage in Manufacturing, 1958

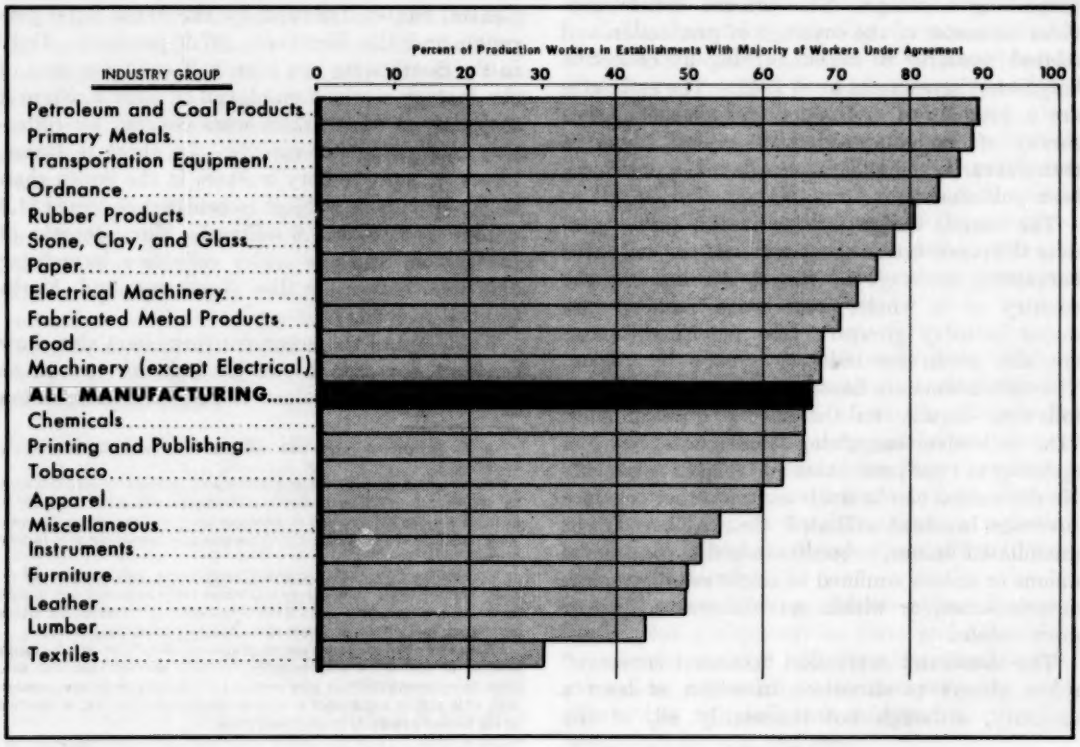

TABLE 1. NUMBER AND PERCENT OF PRODUCTION AND RELATED WORKERS EMPLOYED IN MANUFACTURING ESTABLISHMENTS, BY LABOR-MANAGEMENT AGREEMENT COVERAGE, UNITED STATES, REGION,[1] AND INDUSTRY GROUP,[2] 1958

Region [1] and industry group [2]	Workers in all establishments		Workers in establishments with majority of workers under agreement		Workers in establishments with none or minority of workers under agreement	
	Number (thousands)	Percent	Number (thousands)	Percent of all establishments	Number (thousands)	Percent of all establishments
United States	11,658	100.0	7,762	66.6	3,896	33.4
Northeast	4,139	100.0	2,809	67.9	1,330	32.1
South	2,506	100.0	1,155	46.1	1,351	53.9
North Central	3,907	100.0	2,989	76.5	918	23.5
West	1,105	100.0	802	72.6	303	27.4
Industry groups:						
Ordnance and accessories	68	100.0	57	83.9	11	16.1
Food and kindred products	1,035	100.0	705	68.1	330	31.9
Tobacco manufactures	80	100.0	50	62.6	30	37.4
Textile mill products	851	100.0	256	30.1	595	69.9
Apparel and other finished textile products	1,027	100.0	613	59.7	414	40.3
Lumber and wood products	557	100.0	244	43.8	313	56.2
Furniture and fixtures	297	100.0	147	49.6	150	50.4
Paper and allied products	439	100.0	332	75.5	108	24.5
Printing, publishing, and allied industries	545	100.0	356	65.3	189	34.7
Chemicals and allied products	512	100.0	335	65.4	177	34.6
Products of petroleum and coal	157	100.0	140	89.5	17	10.5
Rubber products	186	100.0	150	80.6	36	19.4
Leather and leather products	318	100.0	157	49.3	161	50.7
Stone, clay, and glass products	418	100.0	325	77.9	92	22.1
Primary metal industries	891	100.0	789	88.6	102	11.4
Fabricated metal products	706	100.0	502	70.6	234	29.4
Machinery (except electrical)	1,039	100.0	706	67.9	334	32.1
Electrical machinery	750	100.0	546	72.8	204	27.2
Transportation equipment	1,124	100.0	976	86.8	148	13.2
Instruments and related products	205	100.0	106	51.5	100	48.5
Miscellaneous manufacturing industries	361	100.0	195	54.0	166	46.0

[1] The regions used in this study are: *Northeast*—Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; *South*—Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia; *North Central*—Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; and *West*—Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

[2] Defined in the November 1945 edition of the Standard Industrial Classification Manual, prepared by the Bureau of the Budget.

NOTE: Because of rounding, sums of individual items may not equal totals.

much greater. Similarly, in textile mill products, contract coverage in cotton and synthetic broad-woven goods was proportionately less than in textile dyeing and finishing. The fact that considerable variation in contract coverage may exist among the component industries of the major industry groups needs to be kept in mind in interpreting the data presented here.

Table 2 shows the proportions of factory workers by major industry group and region who were employed in establishments with collective bargaining agreements covering a majority of the workers. These estimates are less reliable than those shown in table 1 because of the small size of the industry regional samples, and should be considered in conjunction with the sampling errors incorporated in the table. Nevertheless, the data throw much light on the profile of collective bargaining coverage in manufacturing in the United States.

It will be observed from table 2 that collective bargaining coverage in some industry groups tends to be relatively high in all parts of the country. This is true, for example, of primary metals, products of petroleum and coal, transportation equipment, and paper and allied products. In other industry groups, collective bargaining coverage tends to vary substantially by region. Thus, about 70 percent of the workers in establishments producing apparel and other finished textile products are covered by agreements in the Northeast, as compared with 30 percent in the South. On the other hand, collective bargaining coverage in tobacco manufactures is relatively high in the South and low in the less important Northeast area. To some extent, this variation in the regional incidence of contract coverage may reflect differences in the regional composition of industries within the major industry groups. In tobacco, for example, cigarette manufacture, highly mechanized and with substantial contract coverage, is concentrated in the South, whereas the industry in the Northeast is represented largely by small-scale cigarmaking.

Perhaps special interest attaches to the data relating to collective bargaining coverage in the

TABLE 2. TOTAL NUMBER OF PRODUCTION AND RELATED WORKERS AND PERCENT EMPLOYED IN MANUFACTURING ESTABLISHMENTS WITH LABOR-MANAGEMENT AGREEMENTS COVERING A MAJORITY OF THE WORKERS, BY REGION [1] AND INDUSTRY GROUP,[2] 1958

Industry group [3]	Northeast		South		North Central		West		Standard error of estimates of regional percentages [4]			
	Total number of workers in all establishments (thousands)	Percent of workers in establishments with majority of workers under agreement	Total number of workers in all establishments (thousands)	Percent of workers in establishments with majority of workers under agreement	Total number of workers in all establishments (thousands)	Percent of workers in establishments with majority of workers under agreement	Total number of workers in all establishments (thousands)	Percent of workers in establishments with majority of workers under agreement	Northeast	South	North Central	West
Ordnance and accessories	26.0	84	----	----	----	----	----	----	8	----	----	----
Food and kindred products	242.4	74	245.9	41	378.0	74	156.2	87	4	6	4	4
Tobacco manufactures	16.3	27	59.0	72	----	----	----	----	8	7	----	----
Textile mill products	304.6	51	498.6	14	----	----	----	----	5	3	----	----
Apparel and other finished textile products	590.8	70	234.0	30	134.8	80	----	----	4	5	6	----
Lumber and wood products	60.4	23	226.6	27	73.5	52	176.1	69	7	4	8	5
Furniture and fixtures	69.8	50	94.7	28	96.3	63	25.3	80	6	5	5	8
Paper and allied products	161.2	73	106.2	79	133.2	73	37.5	87	4	5	5	6
Printing, publishing, and allied industries	206.3	65	80.7	61	199.2	67	50.2	65	5	7	5	10
Chemicals and allied products	152.6	68	182.0	62	141.0	64	35.4	79	5	5	5	7
Products of petroleum and coal	37.3	85	57.8	88	41.5	95	20.3	82	8	6	4	10
Rubber products	59.7	74	----	----	86.0	86	----	----	8	----	6	----
Leather and leather products	185.1	47	32.5	32	87.2	61	----	----	5	9	6	----
Stone, clay, and glass products	129.5	84	98.6	65	145.2	79	39.4	87	4	6	4	7
Primary metal industries	320.1	88	125.6	95	376.9	89	65.1	77	3	4	3	9
Fabricated metal products	270.5	75	100.1	54	354.4	72	70.0	71	4	7	4	8
Machinery (except electrical)	339.7	67	79.6	63	554.4	72	57.8	44	4	8	3	10
Electrical machinery	352.2	78	----	----	308.8	75	40.9	41	4	----	4	9
Transportation equipment	235.7	73	142.6	86	548.4	92	196.7	89	7	8	3	5
Instruments and related products	123.9	51	9.6	35	55.9	59	11.7	35	5	10	6	10
Miscellaneous manufacturing industries	210.1	53	----	----	97.2	62	21.1	52	4	----	6	7

[1] See footnote 1, table 1, for definition of regions.
[2] Defined in the November 1945 edition of the Standard Industrial Classification Manual, prepared by the Bureau of the Budget.
[3] The standard errors shown in these columns indicate the difference in the percentage of workers in majority agreement status that may occur, because of sampling, between the estimates and the results of a complete canvass of all establishments. These percentages will differ from the results of a complete canvass by less than the percentage points shown in the appropriate "standard error" column in 2 out of 3 samples; by less than twice the percentages shown in 19 out of 20 samples. Estimates with sampling errors of more than 10 percent are not published.

South, in view of the widespread belief that factory unionism is of negligible importance in that region. Actually, in 10 of the 17 industry groups for which estimates for the South are presented in table 2, more than half of the workers were employed in establishments with majority contract coverage. However, the four largest industry groups in terms of employment—food, textiles, apparel, and lumber—exhibited relatively low coverage.

Contract Coverage and Union Membership

Clearly, collective bargaining coverage corresponds closely to union membership. The correspondence, of course, cannot be exact. Not all workers covered by agreements are union members; conversely, not all union members are working in establishments with majority contract coverage. Moreover, unions may count as members persons not in employment status (e.g., unemployed, retired, or in the Armed Forces). Particularly in view of the prevalence of union shop provisions in collective bargaining contracts,[5] however, the difference between contract coverage and membership in the aggregate is not likely to be large. The divergence may be greater in the South than in other regions because of the concentration of States with "right to work" laws in that region.[6] These laws prohibit the union shop or other forms of union security.

For the year 1958, the Bureau, on the basis of information supplied by the unions for the 1959 edition of the Directory of National and International Labor Unions in the United States, prepared estimates of the industrial composition

[5] See Union Security Provisions in Major Union Contracts, 1958–59 (in Monthly Labor Review, December 1959, pp. 1348–1356).
[6] 10 of the 19 States which in 1958 had "right to work" laws of general application are in the South, as defined here. See State Right-to-Work Legislative Action in 1958 (in Monthly Labor Review, December 1958, pp. 1380–1381).

of union membership.[7] It was estimated that national and international unions had about 8.4 million members in manufacturing, including members outside the continental United States. If a correction is made for this latter factor, union members of national and international unions in manufacturing in the United States approximated 7.8 million in 1958.[8] This corresponds almost exactly with the estimate of the number of factory workers in establishments with agreement coverage of a majority of the workers.

This very close correspondence between estimates derived from entirely different sources undoubtedly has significance. The correspondence would be somewhat less close if the union membership data took account of unions confined to a single employer or operating in a single locality, as the data from this survey do. Even so, one would not expect the divergence to be great, in view of the legal and institutional framework within which collective bargaining in the United States operates. Reference is made particularly to the majority representation principle embodied in the National Labor Relations Act and to broad incorporation of union security provisions in collective bargaining agreements.

[7] See Union Membership, 1958 (in Monthly Labor Review, January 1960, pp. 1–9); also Bull. 1267, Directory of National and International Labor Unions in the United States, 1959.

[8] The proportion of members in the United States was assumed to be the same for manufacturing as for the total membership of national and international unions.

Collective bargaining—the process of discussion and negotiation between an employer and a union, culminating in a written contract, and the adjustment of problems arising under the contract—is, in the United States, the core of trade union purpose. It is the predominant form of labor-management relationship—this country's major device for joint participation in establishing wages and working conditions outside the relatively limited area in which the Government operates.

What may well have been the crossroads at which the trade unions moved towards collective bargaining and abandoned political-minded and panacea-seeking organizations was reached during the latter part of the 19th century, when the "pure and simple" unionism advocated by Samuel Gompers, head of the newly formed American Federation of Labor, became dominant. Early in the 19th century, a type of workable relationship with employers had been developed by the first unions, which consisted in the main of selecting a representative to present demands to the employer and making an arrangement, if possible, and striking, if not. Later in the century, national unions were formed to coordinate the operations of various local unions in the same industry so as to protect the standards of all. There were, according to a noted historian, decades of continuous experimentation with programs and strategies in "an incessant search for a mode of operation which would secure to labor a maximum improvement in conditions together with a most stable organization and a minimum of opposition."

—From A Guide to Labor-Management Relations in the United States, U.S. Department of Labor, Bureau of Labor Statistics, Bull. 1225, 1958, pp. 2:01—1–2.

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Special Labor Force Reports

EDITOR'S NOTE.—*The article which follows is one of a series of reports on special labor force subjects formerly covered in Series P–50 of the Bureau of the Census Current Population Reports. Forthcoming articles in the series will cover family characteristics of workers, employment of students, employment experience of last year's high school graduates, and labor force developments during 1959. Articles on the educational attainment of workers and on the marital status of workers appeared in the February and March issues of the Review. Reprints of the articles, with additional detailed tables and a description of methodology for all except the present article, will be available upon request to the Bureau or any of its regional offices (listed on the inside front cover of this issue).*

Unemployment and Job Mobility

ROBERT L. STEIN*

THIS ARTICLE analyzes job mobility in relation to unemployment, both as cause and effect,[1] using data derived from a retabulation of information from a Census Bureau survey for 1955. That study provided a considerable body of data on the extent of job mobility, the reasons for job shifts, and the characteristics of job changers as of a particular year. The unique contribution of the present article is its attempt to correlate data on unemployment and job mobility. The focus of this analysis is on the total number of different workers who changed jobs during the year rather than on the total number of job shifts, as in the original study.

For this discussion, job mobility is defined as any change of employer during a calendar year, regardless of whether or not it also involved a change in occupation or industry and whether it was voluntary or involuntary.

Briefly, the major findings were: (1) Workers who had a job change during the year were five times as likely as other workers to have had some unemployment. More often than not, unemployment preceded job changing and was more important as a reason for mobility than as a direct effect. (2) Job shifting was found to be most frequent among young workers, the unskilled, and those in seasonal activities such as agriculture and construction. These same groups showed the highest rates of unemployment, even for workers who had no job change during the year. (3) Voluntary job shifting in order to improve one's status was a relatively minor source of unemployment in 1955. Moreover, it did not explain, to any significant degree, differences in unemployment rates among various age-sex, occupation, and industry groups in the work force. (4) The failure of manufacturing employment to grow as rapidly as factory output suggests that these findings have special implications for factory workers.

Background

The high degree of voluntary job mobility among American workers has been recognized as a reason for unemployment of short duration. The worker who quits one job may be out of work briefly before he starts a new one. At the same

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[1] This article is an amplification of some of the material on frictional unemployment prepared by the Bureau of Labor Statistics for the Joint Economic Committee, and published as The Extent and Nature of Frictional Unemployment, Study Paper No. 6. The paper was published as a Committee reprint in the series on full employment, price levels, and economic growth.

time, job shifting may prevent or reduce unemployment. Mobility, although involuntary, may be an avenue of escape from unemployment for workers in depressed areas. Job mobility may be preventive for workers whose occupations or industries are subject to declining labor demands, either because of productivity gains or because of changes in consumer preferences.

Apart from its effect on unemployment, mobility, of course, has important psychological and economic implications for the individual worker and has great significance for industry as well. These broader implications, however, are beyond the scope of this article, which deals only with the relationship of mobility and unemployment.

The extent of labor mobility has been subject to divergent influences. Continuing technological advances in American industy and agriculture have inevitably increased productivity and have caused at least temporary imbalances in labor supply and demand. This development has exerted pressure on the labor force to be highly flexible and to adjust to constantly changing labor demands.

A significant development in labor-management relations, however, has probably limited the mobility of American workers. This is the increasing prevalence of various fringe benefits, such as retirement and disability pensions, health insurance, and vacations with pay, for which eligibility depends in part on length of employment. As a result, workers have an added incentive to remain with their present employers. To the extent that such incentives reduce mobility, they also reduce unemployment due to voluntary job shifting. On the other hand, to the extent that they render mobility less desirable than recall for laid off workers, they may temporarily increase unemployment.

Nature of the Data on Job Mobility

Whether job mobility is increasing or decreasing is nearly impossible to determine from the available labor force statistics and this article makes no attempt to assess the trend. The only comprehensive nationwide survey of job mobility was that undertaken by the Census Bureau in January 1956, relating to the mobility of workers during the calendar year 1955.[2]

In that survey and in this analysis, the primary emphasis is on two groups of workers: (1) Job changers—people who held two or more (nonconcurrent) jobs in the course of the year, including those who had no break in employment between jobs, those who had a spell of unemployment between jobs, and those who had a period of withdrawal from the labor force before starting a new job; and (2) nonchangers—people who held only one job or two concurrent jobs in the course of the year, including those who had periods of unemployment or were not in the labor force part of the year.

A number of limitations of the data prevented a more comprehensive analysis. (1) Information was lacking as to whether a spell of unemployment preceded or followed a job change or whether it was directly connected with the job change at all. (2) Reasons for job leaving were reported in fairly general terms, and in some cases it could not be determined whether the change was voluntary or involuntary. (3) No information was obtained on the reasons for unemployment among those who had no job change (e.g., seasonal layoff, layoff for economic reasons, firing for cause, and entry into the labor market). (4) Data were unavailable on the extent to which job shifting also involved a move to a different community. (5) The group that did not change jobs included some workers who either tried to change jobs and were unsuccessful or were in the course of changing jobs in December but did not complete their move until after the close of the calendar year. It would have been desirable to identify such workers separately and to ascertain their unemployment experience, but this could not be done with the materials available.

Despite these limitations, data on unemployment for those who did change jobs, compared with those who had only one job, appeared to yield meaningful results and have been used to

[2] Job Mobility of Workers in 1955, Current Population Reports, Series P-50, No. 70, Bureau of the Census, U.S. Department of Commerce.

The January 1956 study was based on special questions carried in the Census Bureau's Current Population Survey, a sample survey of a representative group of 35,000 households in 330 areas throughout the country. (This sample survey is also the primary source for the current monthly labor force data published and analyzed by the BLS, since July 1959, in the Monthly Report on the Labor Force.) The questions on job mobility were asked after the regular labor force interview and after a series of questions on the work experience of the population in 1955. The latter inquiry, a regular annual supplement, covered such items as weeks worked full or part time, weeks lost because of unemployment or other reasons, and industry and occupation of longest job. Each person who worked at all during 1955 was then asked to describe any jobs he might have had in addition to his longest job, and to report the reason for leaving any job.

TABLE 1. JOB MOBILITY AND UNEMPLOYMENT, CALENDAR YEAR 1955

[Number of workers in thousands]

Job mobility status	Total number of workers	Workers with unemployment			
		Number	Percent of all workers	Percent of those with unemployment who lost—	
				Less than 5 weeks	15 weeks and over
Total who worked during 1955	75,353	9,814	13.0	39.0	27.3
Did not change jobs	67,113	6,149	9.2	40.8	27.8
Did change jobs	8,240	3,665	44.5	36.0	26.4
Changed jobs only once	5,508	2,041	37.1	40.5	24.6
Economic reasons	1,116	719	64.4	35.6	28.5
Termination of temporary job	545	214	39.3	21.0	41.6
Improvement in status [1]	2,665	767	28.8	45.8	18.8
Illness, family responsibilities, all other reasons	1,182	341	28.8	51.3	18.8
Changed jobs more than once	2,732	1,624	59.4	30.4	28.7
Economic reasons	979	729	74.5	29.1	28.1
All other reasons	1,753	895	51.1	31.4	29.2

[1] Includes persons who reported that they left in order to get a better job, make more money, or to escape dissatisfaction with the kind of work, conditions of employment, or other aspects of their previous job.

SOURCE: Retabulation of data originally published in Job Mobility of Workers in 1955; see text footnote 2.

provide some tentative answers to questions such as these:

1. How much unemployment was associated with job shifting?
2. What were the characteristics and unemployment experience of job shifters as compared with other workers?
3. How important was voluntary job changing as a reason for unemployment?
4. To what extent did unemployment lead to job changing? After how long? Among which groups in the labor force?

Unemployment Among Job Changers

In the calendar year 1955, more than 75 million persons had some work experience, including 8¼ million who met the definition of a job changer (table 1). Whatever their reason for leaving a job, the job changers, as a group, had a high rate of unemployment. About 3½ million, or 45 percent of the 8¼ million job changers, had at least one spell of unemployment during 1955. In contrast, only 9 percent of the 67 million workers with only one job suffered a period of unemployment. Job changers, as a group, represented only 11 percent of the annual work force but 37 percent of those with any unemployment.

One-third of all job changers—2¾ million of the 8¼ million total—had two or more shifts during the year. Nearly 60 percent of these workers also had one or more spells of unemployment. These workers accounted for less than 4 percent of the annual work force, but they represented 17 percent of all those with unemployment.

The duration of unemployment—that is, the total number of weeks lost by individual workers who had any unemployment—was about the same for job changers as for other workers. Among those who had unemployment but no change of job, 41 percent had less than 5 weeks of unemployment and another 20 percent had 5 to 10 weeks. Among those who did have a job change, 36 percent had less than 5 weeks, and an additional 24 percent had between 5 and 10 weeks of unemployment. As will be brought out later, however, workers who lost a job and then took a different one had longer periods of unemployment than did workers who quit in order to take another job.

Worker Characteristics and Unemployment

Age and Sex. One outstanding characteristic of the job changer was his youth. About 27 percent of the young men between 18 and 24 years of age who worked at all in 1955 were job changers (chart 1). This compared with 13 percent for men in the central age groups and only 7 percent among those over 45. The pattern by age was the same for women workers, although the extent of job changing was lesser for women than for men at all ages.

About one-third of all job changers were under 25 years of age. These young people have few accumulated rights under fringe benefit programs, and it seems likely that they would be primarily interested in such matters as income and prospects for advancement. At the same time, about one-fifth of the workers who changed jobs in 1955 were 45 years of age and over. Among this group of workers, fringe benefit rights would be much more likely to have a significant effect on job mobility.

The difficulties of young men aged 18 to 24 in getting settled down at satisfactory jobs are already apparent from their high rates of job

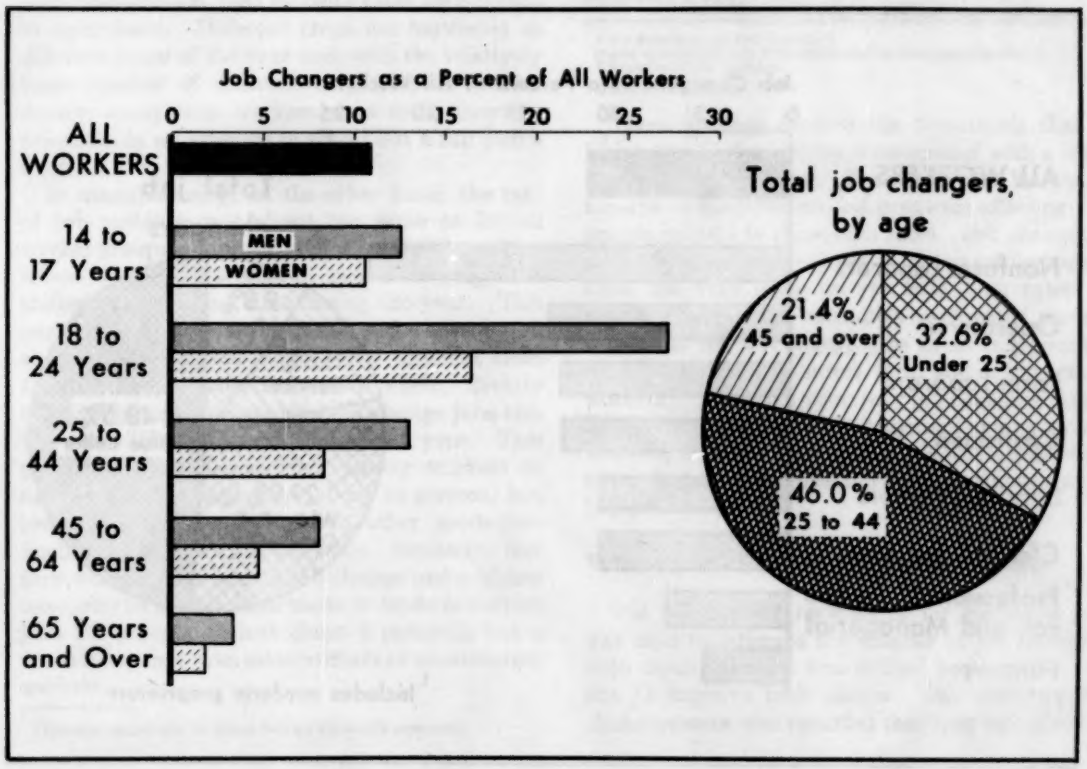
changing. Moreover, those who did change jobs were more likely to experience unemployment than were adult men in the 25–44 age group who changed jobs. Probably more significant, however, is the fact that the unemployment rates [3] even for young men who had no job change were still twice as high as the unemployment rates for men in the prime working ages (table 2). In part, this difference reflects the fact that initial entry into the labor force on a permanent basis occurs most often in the 18–24 age group and frequently involves a period of job seeking. In addition, the high rates of unemployment for young men may reflect layoffs due to low seniority, inexperience, or lack of training. It must be recognized also that some of the unemployment among these youths was probably the result of an attempted job change that was either unsuccessful or was not completed by the end of the calendar year.

The workers over age 45 who changed jobs were also more likely to have had some unemployment than were job changers 25 to 44 years of age. Older workers who had only one job, on the other hand, had slightly lower unemployment rates than those 25 to 44 years of age with only one job. This presumably resulted in part from the greater seniority and experience of the older worker.

Occupation. Among broad occupation groups, unskilled laborers had the highest proportion of job changers, while occupations requiring a long period of formal education or some capital investment had the lowest (chart 2). One out of every four nonfarm laborers had a job change at some time during the year. The next highest proportion (one in eight) was among other manual

[3] Unemployment rates cited in this article represent the number who had any unemployment during 1955 as a percent of the number who had any work experience during the year.

Chart 1. Job Mobility, by Age and Sex, Calendar Year 1955



workers and among farm laborers.[4] Job changing was least likely to occur among professional, technical, and managerial workers and among the self-employed. Only one in twenty of these workers had a change of jobs during the calendar year 1955.

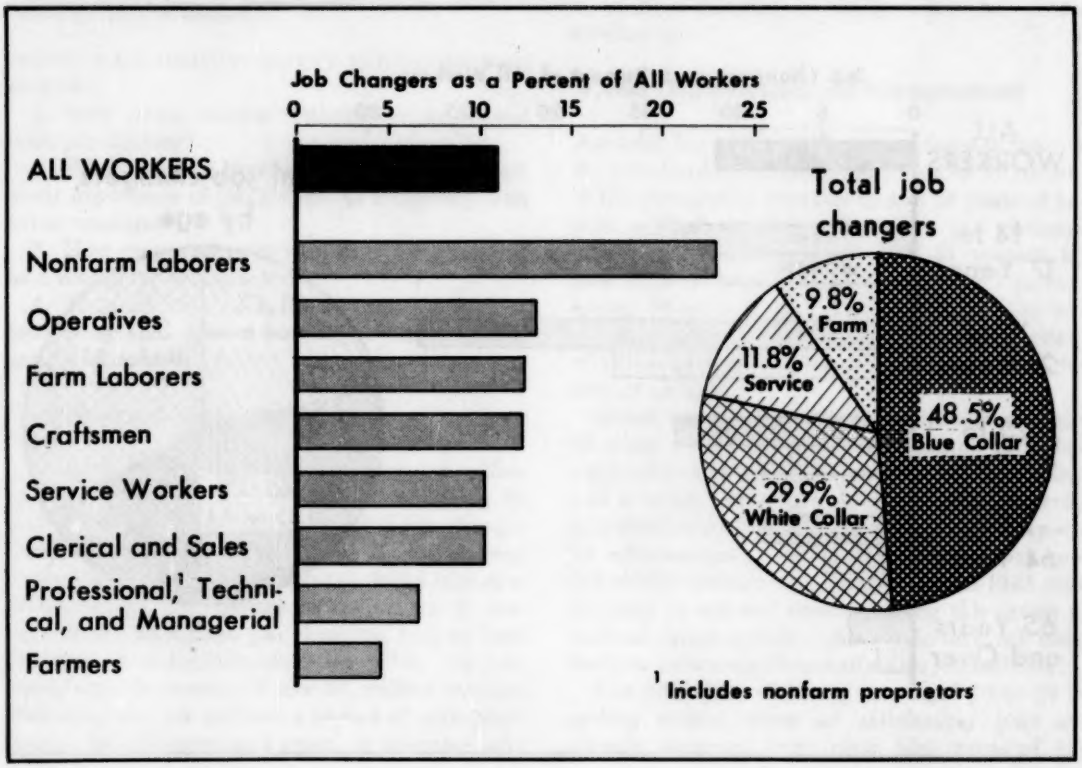
Nonfarm laborers who changed jobs were more likely than any other occupation group to have some unemployment (55 percent). Operatives who had a job shift also had a comparatively high proportion who experienced unemployment (51 percent)—more than twice as high as for the professional and managerial workers who changed jobs (23 percent).

As was the case with young workers, nonfarm laborers were subject to high rates of unemployment even if all their work experience was with one employer during the year. About 20 percent of the unskilled laborers who had only one job suffered at least one spell of unemployment. As in the case of job changers, operatives had the second highest rate of unemployment among those with only one job (15 percent). At the other extreme, professional, technical, and managerial workers, together with farm proprietors, had unemployment rates of only 2 percent if they did not shift jobs during the year. Among the remaining nonfarm occupations, other white-collar workers (clerical and sales) tended to fare better than service workers among both changers and nonchangers. At the same time, service workers made a better showing than did skilled or semiskilled blue-collar workers.

Industry. The patterns of job shifting and unemployment shown for the young worker and for the unskilled laborer also emerge for the construction

[4] The farm laborer group includes both family workers, with a relatively low rate of job changing, and hired workers (including migrant workers) who have a high rate. In fact, the rate for farm wage workers was 24 percent, as high as that for nonfarm laborers.

Chart 2. Job Mobility, by Major Occupation Group, Calendar Year 1955



worker. (Of course, there is a certain amount of overlap among these groups.) One out of every four construction workers was involved in a job shift, in contrast to one out of nine workers in the labor force as a whole. Of those who shifted jobs, 59 out of 100 construction workers also had some unemployment, compared with about 45 out of 100 for all job changers. Again, however, the more significant finding was the unusually high unemployment rate even for those construction workers who had no job change—25 percent as compared with 9 percent for all such workers.

As is well known, the nature of the construction industry inevitably exposes a substantial proportion of the work force to frequent, if brief, spells of unemployment. Most construction projects last for limited periods and there is a strong chance that a worker will be unemployed at least until his firm gets a contract for a new project or until he finds another job.

The rate of mobility was equally high among farm wage workers for much the same reasons. As in construction, high mobility rates are inherent in agriculture. Different crops are harvested at different times of the year and, with the relatively large number of different employers in the industry, many farm workers must make frequent job shifts in an attempt to round out a full year's work.

In manufacturing, on the other hand, the rate of job mobility was about the same as for all worker groups combined. Of every 1,000 workers whose longest job was in manufacturing, 107 shifted jobs at some time during the year. This compared with 242 for farm and construction workers but was not significantly different from the 109 for the labor force as a whole. Nearly half the factory workers who did change jobs also had some unemployment during the year. This proportion was higher than among workers in service-rendering activities (about 35 percent) but lower than among workers in other goods-producing industries [5] (55 percent). Similarly, factory workers who had no job change had a higher unemployment rate than those in trade or service jobs (11 percent against about 8 percent), but a much lower rate than mine workers or construction workers.

[5] Includes agriculture, for which data are not shown separately.

TABLE 2. UNEMPLOYMENT RATES [1] FOR JOB CHANGERS AND NONCHANGERS, BY SELECTED CHARACTERISTICS, CALENDAR YEAR 1955

Selected characteristics	Job changers	Non-changers
AGE AND SEX		
Male: 14 to 17 years	33.0	7.7
18 and 19 years	43.9	16.4
20 to 24 years	46.0	16.8
25 to 44 years	40.6	7.7
45 years and over	32.2	7.1
Female: 14 to 17 years	30.1	10.6
18 and 19 years	31.1	14.1
20 to 24 years	36.0	7.4
25 to 44 years	31.1	7.9
45 years and over	28.6	5.9
OCCUPATION GROUP OF LONGEST JOB		
Professional and managerial [2]	23.0	2.1
Clerical and sales	31.0	5.1
Craftsmen and foremen	47.3	11.1
Operatives	50.5	14.5
Nonfarm laborers	54.7	20.3
Service workers	38.9	8.8
Farm operators	5.6	1.6
Farm laborers [3]	48.8	8.0
INDUSTRY GROUP OF LONGEST JOB FOR NONFARM WAGE AND SALARY WORKERS		
Mining	61.8	17.9
Construction	59.1	24.5
Manufacturing	45.5	10.9
Transportation and other utilities	40.8	7.2
Wholesale and retail trade	36.7	8.8
Service and finance	33.7	6.7
Public administration	34.2	3.0

[1] For definition, see text footnote 3.
[2] Also includes officials, technicians, and nonfarm proprietors.
[3] Excludes family workers.

SOURCE: See table 1.

These findings confirm the hypothesis that a high rate of job mobility is associated with a high rate of unemployment. Both appear to be symptomatic of the labor market problems affecting the groups subject to these high rates. Job changing, as such, does not explain high unemployment, since the very same groups with high rates of mobility have high unemployment rates among those who did not change jobs at all (e.g., young workers, unskilled laborers, farm and construction workers). Although voluntary job changing is one reason for temporary unemployment among young workers, it will be shown that this was a relatively minor factor in the total unemployment picture in 1955.

Voluntary Job Shifting and Unemployment

The information on reasons for leaving a job was used to estimate the number of job changers with unemployment who shifted because of a desire to improve their status. This category includes persons who reported that they left in order

to get a better job, make more money, or to escape dissatisfaction with the kind of work, conditions of employment, or other aspects of their previous job. This is the category that most nearly approximates the usual concept of frictional unemployment due to voluntary job shifting.

It is not possible to quantify this group precisely, because many job changers had more than one change for a combination of different reasons. A fairly reasonable estimate, however, would be that about 1.3 million persons, or 13 percent of the nearly 10 million who had any unemployment in 1955, had shifted jobs voluntarily during the year. Care should be used in applying these proportions to average monthly unemployment. Because voluntary job changers tend to have shorter spells of unemployment than other workers, they would be counted less frequently in the monthly surveys and would account for a smaller proportion of the monthly figure than of the calendar year total. Moreover, as noted earlier, the unemployment experienced by some of these voluntary job changers undoubtedly was due to reasons not connected with their change of jobs. Therefore, probably no more than 10 percent of average monthly unemployment in 1955 was the direct result of voluntary job changing itself. Since 1955 was a year of great expansion in employment opportunities, the rate of voluntary job separations may have been even higher than in other relatively prosperous years.

Variations in the extent of voluntary job leaving among different groups in the labor force, although substantial, had very little effect on differential rates of unemployment. The main reason was that there were too few voluntary job changers to make much of an impact on unemployment by age, occupation, or industry. In order to measure their impact, the proportion of voluntary job changers was standardized (i.e., made identical) for workers in each age-sex group, each occupation, and each industry group at 4 percent, which was the overall rate for the entire work force. Since the actual rate of unemployment among voluntary job changers was much higher than for all groups of workers combined (roughly one out of three as compared with one out of eight), standardization raised the unemployment rates for groups with below-average mobility and lowered those for groups with above-average mobility. In nearly all cases, however, the difference between the actual and the standardized rate was less than 1 percentage point. The largest difference was for young men 18 to 24 years of age, where the assumption of only average mobility reduced their overall unemployment rate from 25 to 23 percent. Even after standardization, their rates remained more than twice as high as those for men aged 25 and over.

Among those who changed jobs voluntarily, the extent to which different groups experienced unemployment varied considerably; these differences, however, should be interpreted with caution because the base figures were relatively small. Workers with the highest rate or longest duration of unemployment overall were also the ones most subject to unemployment if they had a job change during the year. Some illustrations follow: (1) Workers in the central age groups (25 to 44) who changed jobs were less subject to unemployment than were younger or older workers, especially among men. (2) White job changers were only half as likely to experience unemployment as were nonwhite changers. (3) Married men and women who changed jobs had less unemployment than other workers. (4) White-collar workers—especially the professional and technical groups—were less likely to be jobless than were blue-collar or service workers who had a job shift.

Although voluntary job mobility was not a major cause of unemployment in 1955, it will undoubtedly be more significant during the 1960's. The number of persons under 25 years of age in the labor force is expected to exceed 20 million by 1970, some 60 percent more than their number in 1955. As a result, these young people may encounter serious problems of adjustment to a highly competitive labor market. While not a complete solution, several means can be used to reduce the temporary unemployment that results when a young worker is seeking his first job or when he becomes dissatisfied with one of his first jobs and seeks another one. One means is improvement in the channeling of jobseekers into openings for which they may be qualified but may not know about. More carefully directed training and education of young persons would also be of great assistance to them in finding suitable jobs.

Workers who quit voluntarily to get a better job were nearly twice as numerous as workers who changed involuntarily for economic reasons such as lack of sufficient work, business failure,

and business relocation. Those who left jobs to improve their status accounted for over two-fifths of the 8¼ million total; those who left jobs involuntarily for economic reasons accounted for about one-fourth. The remaining one-fourth were persons who left a job because of disability, illness, or family or school responsibilities and subsequently took a different job, and persons whose temporary jobs were terminated—mostly seasonal workers.

Job changers with unemployment, however, were more likely to be those who left a job because of economic reasons than those who left to get a better job. Figures for workers with only one job change illustrate this. Those who left a job to improve their status had an unemployment rate of 29 per 100; those who left involuntarily because of economic reasons had a rate of 64 per 100. Similarly, the voluntary group was more likely to experience only brief spells of unemployment. Some 46 percent of the voluntary job leavers with unemployment lost less than 5 weeks, compared with 36 percent of those whose jobs had been terminated for economic reasons. Comparable figures for long-term unemployment (15 weeks and over) were 19 percent for the voluntary group, 29 percent for the involuntary. Among workers who had unemployment but no job change, 28 percent lost as much as 15 weeks.

Unemployment as a Cause of Mobility

Analysis of unemployment as a cause of job mobility is restricted to those whose job changing was involuntary. About 1.8 million workers with unemployment in 1955 were persons who also left a job involuntarily either because of economic reasons or because of the termination of temporary employment. At the same time, there were 6.1 million workers who had unemployment but no job change. It was assumed that the causes of their unemployment were predominantly the same as those of the involuntary job changers—layoff for economic reasons or termination of seasonal employment—and that relatively few had unemployment owing to entry into the labor market, firing for cause, or other reasons.

[8] Unemployment resulting from long-term economic changes, such as the decline of an industry where demand has fallen off, the geographic movement of industries, and the obsolescence of skills because of mechanization.

The average duration of unemployment among the 1.8 million involuntary job changers was longer than among the 6.1 million nonchangers. The median duration of unemployment was 9½ weeks for the changers, 7½ weeks for the nonchangers. About 3 out of 10 changers, as compared with 4 out of 10 nonchangers, who had unemployment lost less than 5 weeks of working time. A higher proportion of the job changers than of the nonchangers had more than 15 weeks of unemployment (31 percent, compared with 28 percent).

Unemployment was of longer duration among the changers partly because some workers who lost jobs were reluctant to shift to another employer and did so only after prolonged financial pressures made it necessary. In addition, some long-term, or structural,[8] unemployment results from the complete disappearance of certain jobs. For the workers who held them, the search for other jobs may have prolonged unemployment beyond what it was for other workers who were merely awaiting recall to their old jobs after business picked up.

The relationship between layoffs and job changing varied among different groups in the labor force. As was the case for the labor force as a whole, unemployed men were much more likely to be job changers than were unemployed women in all age groups. Young men 18 to 24 years of age who had been laid off had the highest rate of job changing (one in three), but a substantial proportion (one in four) of men between 45 and 64 years of age also changed jobs after a layoff. Middle-aged and older men either were more resistant than younger men to job changes or found it more difficult to change, or both. Not only were job changer rates lower for the middle-aged, but also those who did change had been unemployed longer. For example, about two out of five had 15 weeks or more of unemployment; only one out of four younger men who shifted jobs had lost that much time.

Workers from seasonal industries such as farming and construction were most likely to change jobs after a period of unemployment (one in three). Unemployed workers from manufacturing and closely allied industries such as transportation and mining had a job-changer rate of one in five.

Implications for Factory Workers

Although the degree of job mobility has important implications for all workers, there has been particular concern about the status of the factory worker. Broad technological advances in factory production have resulted in greatly increased output without a proportionate increase in man-hours.[7] Between 1948 and 1956, the latest full calendar year unaffected either by recession or by a major strike, the unemployment rate in manufacturing rose from about 4 percent to 4½ percent. This represented an increase of roughly 120,000 unemployed workers. Over that same period, total employment rose by 10 percent, but the number of factory production workers increased by only 4 percent. On the other hand, nonproduction workers in manufacturing showed a 40-percent increase. Nevertheless, total factory employment never returned to its 1953 peak after the 1954 recession, even during the boom period of 1955–57. Similarly, factory employment is currently still below its 1957 peak.

Technological change within an industry does not necessarily lead to the immediate layoff of workers whose jobs are no longer necessary. For one thing, some reduction in the work force can be achieved by normal attrition, that is, by not hiring new workers to replace those who die or retire or transfer voluntarily to other employers. Moreover, some firms have instituted programs for retraining workers to fill new jobs created by the introduction of new methods of production. These less painful ways of handling worker displacement usually suffice if the new methods are not introduced too abruptly.

Nevertheless, technological advances have generated interest in the mobility patterns of factory workers. Of course, movement of surplus workers out of an industry tends to be a slow process, not without problems. Some of those who do shift may experience a certain amount of downgrading in terms of skill and wage levels. Moreover, strong psychological pressures operate against mobility if a change of residence is implied. Over the long run, however, the transfer of workers from occupations and industries which are declining to those where they are needed is necessary in our dynamic economy. For the factory worker—usually a semiskilled operative—the problem may be acute if he lacks the education or the right kind of training or experience to shift into an occupation where job opportunities are available and growing.

In 1955, the mobility rates for factory workers were about the same as for the labor force as a whole but they may have to be increased in the future if technological unemployment is to be held to a minimum.

Future Studies

Although this study yielded some results, it represents only a beginning. Additional surveys would be needed to measure the trend in mobility and to provide the kinds of data needed, but unavailable from the January 1956 study, for more refined analysis. In addition, a number of problems that should be explored further in the general area of job mobility do not lend themselves to the methodology used to collect the data on which this article is based. For example, some of the topics that additional research might investigate are the following: (1) The psychological factors inducing receptiveness to job changing; (2) the extent to which migration might be necessary; (3) the degree to which skills are transferable without additional training and, as a corollary, how much training might be required, especially for semiskilled and unskilled manual workers; (4) to what extent mobility is accomplished only at the cost of downgrading in terms of skill, wages, and other conditions of work, both for the individual worker and for broad classes of workers; and (5) the effect of fringe benefits on mobility.

[7] See, for example, BLS Bull. 1249, Trends in Output per Man-Hour in the Private Economy, 1909–1958 (December 1959).

Purchasing Power of Workers in the U.S.S.R.

EDMUND NASH*

THE PURCHASING POWER of Soviet workers has been increasing steadily in recent years, mainly as the result of rising wages. However, real earnings of the average worker in the Soviet Union, in terms of food-buying power, are still below the high point in the Soviet level of living reached in 1928, when private enterprise was permitted to a minor extent under the then New Economic Policy (the "NEP") and the peasants had not yet been forced into collective farms. The level of living declined after the introduction in September 1928 of the Five Year Plans (which continued through 1958), with their emphasis on the expansion of heavy industry. This emphasis has continued up to the present. The most recent Soviet statistical yearbook [1] reported that by 1958 capital goods production had increased to 570 percent of its 1940 level, while consumer goods production had reached only 270 percent. The Seven Year Plan (1959–65) calls for an average annual increase of 9.4 percent in the production of capital goods, as against 7.4 percent for consumer goods.

Official Soviet price and wage data indicate that the average Soviet worker had to work about 8 percent longer in 1959 than he did in 1928 in order to buy for his family the same average weekly supply of seven essential foods—bread, potatoes, beef, butter, eggs, milk, and sugar. (See table 1 and chart 1.) In particular, he had to work about 18 percent longer for a pound of bread, about 10 percent longer for sugar, about 153 percent longer for milk, and 190 percent longer for eggs. Beef was just as "cheap" as in 1928, and potatoes and butter were slightly "cheaper." Comparable data for 1928 are not available for other consumer goods; however, other data clearly indicate that prices for these goods, especially clothing, also rose after 1928 at a higher rate than money earnings.[2]

In 1959, a Soviet worker, if the sole supporter of a family of four, would have had to work 28.49 hours, or 62 percent of the legal 46-hour workweek of most workers, to buy enough of the seven foods listed for his family. An earlier study [3] showed that in 1953 the average Soviet worker had to work approximately 38.17 hours for the same amount of food, or 79.5 percent of the then prevailing legal 48-hour workweek of most workers. The relatively high cost of food in the Soviet Union helps explain the exceptionally high percentage of the labor force who are women (47 percent of the labor force in January 1960 were women, compared with 35 percent in the United States). To ease the homework of employed women with families, the Soviet Government has been encouraging factory and other restaurants (some created solely for this purpose) to prepare take-home meals and cooked foods, and encouraging grocery stores to extend home deliveries of milk, bread, potatoes, and vegetables. However, in Moscow, where the system of home deliveries was most highly developed in mid-1958, less than 1 percent of the bread sold was delivered to homes.

The seven foods given in table 1 do not include various other customary and important foods such as vegetables (especially cabbage), fruits (in season), and tea. In 1953, presumably to hold down their expenditures for food, about 40 percent of the Soviet wage and salary earners (18 million out of a total of 44.8 million) worked individual or collective gardening plots to produce their own potatoes, other vegetables, and fruit. Home production of food may become less important in the future: A joint Communist Party-Government decision published in Pravda on January 27, 1960, provided for supplying the Soviet people with various processed foodstuffs to be obtained from the scheduled increased

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[1] Narodnoe khoziaistvo SSSR v 1958 godu [The USSR National Economy in 1958] (Moscow, 1959), p. 142.

[2] For a discussion of the decline in real earnings in the Soviet Union between 1928 and 1952, see Janet G. Chapman, Real Wages in the Soviet Union, 1928–1952 (in Review of Economics and Statistics, Cambridge, Mass., May 1954, pp. 134–156).

[3] Purchasing Power of Soviet Workers, 1953 (in Monthly Labor Review, July 1953, pp. 705–708).

production by collective and State farms of potatoes, vegetables, and fruit. The expectation apparently is that the people's earnings will increase in the years to come to enable them to buy the new processed foodstuffs.

Soviet Wage-Price Policy

The present policy is to increase purchasing power (real earnings) especially of low and average earners by increasing money wages, mainly through the promotion of higher labor productivity; this indicates a change in the policy dominant in the period 1947–54, when the Government considered the annual across-the-board price cuts on essential consumer goods as the "most important means of raising real earnings." [4] Since 1954, there have been only occasional price cuts, mostly on luxury and semiluxury goods; for example, on July 1, 1959, prices were cut on bicycles, cameras, women's rayon stockings, wines, and children's toys, and on March 1, 1960, on electrical sewing machines, silk clothing, radios, motor scooters, accordions, safety razor blades, and certain other items. There have also been some price increases; for example, in 1958, for vodka, wines, automobiles, and machine-made carpets.

To encourage the purchase of certain high-priced consumer goods, the Soviet Government introduced installment buying in three Ukrainian cities in the spring of 1959, and in Moscow on October 1, 1959. In order to get credit, a buyer had to have a reference from his place of work, make a downpayment of 20 to 25 percent of the purchase price, and agree to pay the remainder within 6 to 12 months. By February 1960, installment buying had been expanded to about 2,000 stores in the Russian Republic, the largest of the 15 Republics in the Soviet Union. Radios and radio-phonographs constituted about one-third of the installment purchases. Other popular items among installment buyers were woolens, silks, watches, and furs.

The Soviet worker's purchasing power also is affected by the availability of consumer goods, many of which are still in short supply despite rent increases. Since 1953, sales of consumer goods in State and cooperative stores in the Soviet Union has been increasing at a faster rate than the growth of population (which has risen about 1.5 percent annually). For example, in 1957, the volume of sales had increased 14 percent over 1956; in 1958, 6 percent over 1957; and in 1959, 8 percent over 1958. Despite this continued increase, the Central Statistical Administration in its economic report for 1959, which was printed in the Moscow daily press on January 22, 1960,

[4] Pravda, April 3, 1953.

TABLE 1. APPROXIMATE WORKTIME REQUIRED TO BUY SELECTED FOODS AT STATE-FIXED PRICES IN MOSCOW, APRIL 1, 1928, APRIL 1, 1953, AND AUGUST 15, 1959

Food	Prices (in rubles)			Quantity consumed per week by a family of 4 [4]	Approximate worktime [5]				
					In hours			1953 [3] as percent of 1928	1959 as percent of 1928
	1928 [1]	1953 [2]	1959 [3]		1928	1953 [3]	1959		
Rye bread, 1 kilogram	0.080	1.35	1.30	9.84 kilogram	2.71	4.52	3.20	167	118
Potatoes, 1 kilogram	.085	.75	1.00	12.16 kilogram	3.56	3.10	3.04	87	85
Beef, 1 kilogram	.870	12.60	12.00	3.68 kilogram	11.04	15.77	11.04	143	100
Butter, 1 kilogram	2.430	26.75	27.00	.44 kilogram	3.69	4.00	2.97	108	80
Sugar, 1 kilogram	.620	9.09	9.40	1.80 kilogram	3.85	5.57	4.23	145	110
Milk, 1 liter	.063	2.20	2.20	4.96 liter	1.08	3.71	2.73	344	253
Eggs, per 10	.200	6.88	8.00	6.40 eggs	.44	1.50	1.28	341	290
All 7 foods					26.37	38.17	28.49	145	108

[1] Official Soviet prices from the People's Commissariat of Labor, as transmitted to the International Labor Office (see International Labor Review, Vol. 18, October–November 1928, pp. 657–660). These prices were lower than those in private trade which played a large role in workers' consumption, and their use may somewhat inflate the workers' real purchasing power at that time. On the other hand, it appears that Moscow food prices were noticeably higher than the national average in 1928; but Moscow goods were superior in quality. (See Naum Jasny, The Soviet Economy During the Plan Era, Stanford, Calif., Stanford University Press, 1951, p. 105.)

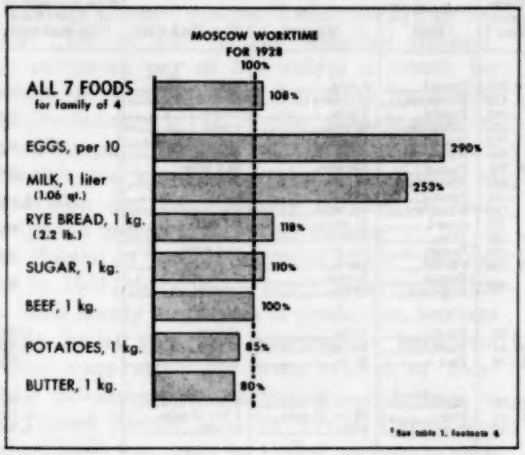
[2] Data from Purchasing Power of Soviet Workers, 1953 (in Monthly Labor Review, July 1953, pp. 705–708).

[3] Prices in Moscow State stores during August 1959, based on information appearing in the Soviet press.

[4] Weekly consumption figures per person in 1928 from International Labor Review, ibid., p. 659; the average worker's family in 1928 consisted of 4 persons. (See Solomon Schwarz, Labor in the Soviet Union, New York, Praeger, 1952, p. 145.) The same percent relationship between 1928 and 1959 would be obtained if the quantities for 1 person were used instead of the quantities for a family of 4.

[5] Worktime is computed by multiplying quantity consumed by price and dividing the product by average hourly earnings. In 1928, official national average earnings were 703 rubles per year (figure given in Trud v SSSR [Labor in USSR], Moscow, 1936, p. 17), or 0.29 rubles per hour; in 1953, the estimated average earnings were about 600 rubles a month, or 2.94 rubles per hour; in 1959, the estimated average earnings were about 800 rubles a month, or approximately 4 rubles per hour, according to an analysis of scattered data appearing in the Soviet press.

Chart 1. Worktime Required to Buy Week's Supply [1] of Selected Foods in Moscow, 1959 as a Percent of 1928



specifically mentioned a shortage of cotton fabrics, furniture, and home refrigerators, and stated that in general, there was an insufficient assortment of consumer goods and too many low quality goods.

Government and Party leader Nikita Khrushchev promised in a speech on March 14, 1958, that the scheduled production of clothing and footwear would meet the needs of the Soviet population by 1965. On March 20, 1958, an immediate increase in the production of children's clothing and footwear was decreed, and on May 7, 1958, the Central Committee of the Communist Party adopted a decision providing for speeding up production of synthetic materials to be used in the manufacture of fabrics, clothing, footwear, and other consumer goods. A joint Party-Government decree published on October 16, 1959, provided for sharply increased production in 1960 and 1961 of durable consumer goods such as refrigerators, television sets, washing machines, metal beds, electric irons, and kitchenware; automobiles, the cheapest of which costs about 25,000 rubles and which requires years of customer waiting, were not mentioned. The measures just enumerated indicate that for the Soviet people an adequate supply of consumer commodities is still a matter of the future.

[1] In Promyshlenno-ekonomicheskaya gazeta [Industrial-Economic Gazette], November 4, 1956.

Average Earnings in the U.S.S.R.

Since the Soviet Government does not publish statistics on average money earnings in Moscow (or any other Soviet city), it has been necessary to estimate earnings from scattered data appearing in the Soviet press. The estimate arrived at is about 800 rubles (or $80 at the tourist rate of exchange of 10 rubles for US$1) a month, or approximately 4 rubles an hour. The prominent Soviet economist and member of the Academy of Sciences, S. Strumilin, in an article published in 1956,[5] assumed an average hourly wage of 4 rubles. This estimate was evidently a rounding up of the actual average, because there is evidence of some increase in earnings since that time.

Factors which have contributed to increase the average money wage in recent years (the BLS estimate in 1953 was 600 rubles a month) include the reclassification of millions of workers annually into higher wage categories reflecting their acquisition of new work qualifications, the increase as of January 1, 1957, of minimum

Chart 2. Worktime Required to Buy Selected Commodities, Moscow as a Percent of New York City, 1959

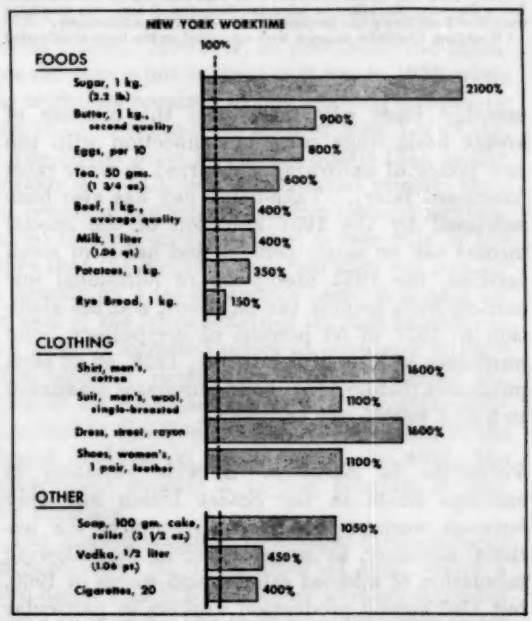


TABLE 2. APPROXIMATE WORKTIME REQUIRED TO BUY SELECTED COMMODITIES AT STATE-FIXED PRICES[1] IN MOSCOW AND AT RETAIL STORE PRICES IN NEW YORK CITY, AUGUST 15, 1959

Commodity	Moscow price (in rubles) [2]	New York City price (in dollars) [3]	Approximate worktime [4]			Moscow worktime as a percent of New York City worktime
			Unit	Moscow	New York City	
Foods:						
Rye bread, 1 pound	[5] 0.59	[5] 0.215	Pound	9 min.	6 min.	150
1 kilogram (2.2 lb.)	1.30	[5] .473	Kilogram	19.5 min.	13 min.	
Potatoes, 1 pound	.45	.060	Pound	7 min.	2 min.	350
1 kilogram	1.00	.132	Kilogram	15 min.	4 min.	
Beef, rib roast, 1 pound	5.45	.757	Pound	82 min.	21 min.	400
1 kilogram	12.00	1.665	Kilogram	180 min.	46 min.	
Butter, salted, 1 pound	12.27	[6] .741	Pound	184 min.	20.5 min.	900
1 kilogram	27.00	1.630	Kilogram	405 min.	45 min.	
Sugar, 1 pound	4.27	.110	Pound	64 min.	3 min.	2,100
1 kilogram	9.40	.242	Kilogram	141 min.	7 min.	
Milk, at grocery, 1 quart	[5] 2.08	.273	Quart	31 min.	7.5 min.	400
1 liter (1.06 qt.)	2.20	[5] .289	Liter	33 min.	8 min.	
Eggs, 2d grade, per dozen	[5] 9.60	[7] .629	Dozen	144 min.	17.4 min.	800
per 10	8.00	[5] .524	Per 10	120 min.	14.5 min.	
Tea, 50 grams (1¾ ounces)	3.80	.200	Ounce	33 min.	5.5 min.	600
			50 grams	57 min.	10 min.	
Men's clothing:						
Shirt, cotton [8]	60.00	2.03	Each	15 hr.	56 min.	1,600
Suit, wool, single-breasted, middle of price range	1,100.00	80.41	Each	275 hr.	23 hr.	1,100
Shoes, leather oxfords, pair	245.00	15.10	Pair	61 hr.	7 hr.	850
Women's clothing:						
Dress, street, rayon	294.00	10.00	Each	73 hr. 30 min.	4 hr. 36 min.	1,600
Shoes, leather oxfords, middle of price range	230.00	11.21	Pair	57 hr. 30 min.	5 hr. 10 min.	1,100
Stockings, nylon	32.00	1.35	Pair	8 hr.	37 min.	1,300
Other commodities:						
Soap, toilet, 100-gram cake (3½ ounces)	2.10	.105	Each	31.5 min.	3 min.	1,050
Cigarettes, package of 20	[5] 1.80	.25	Package	27 min.	7 min.	400
Vodka, pint	25.28	[10] 2.98	Pint	6 hr. 19 min.	1 hr. 22 min.	450
½ liter (1.06 pt.)	26.80	3.16	½ liter	6 hr. 42 min.	1 hr. 27 min.	

[1] Prices observed on the open market, where collective farmers sell their produce, were much higher in comparison with State store prices. For example, potatoes were 1.50 rubles per kilogram; beef, 25 rubles per kilogram; and eggs, 15 rubles for 10.

[2] Moscow prices in State stores, based on information appearing in the Soviet press; the prices for pound, quart, and dozen were calculated from Moscow prices for kilograms, liter, and 10 eggs, respectively.

[3] New York City prices in retail stores were collected by the Bureau of Labor Statistics; the prices for kilogram, liter, and 10 eggs were calculated from New York City prices for pound, quart, and dozen, respectively.

[4] Worktime figures for Moscow were computed on the basis of estimated average gross earnings of 4 rubles per hour of Moscow workers in manufacturing, a figure that is consistent with the Bureau of Labor Statistics' estimate of about 800 rubles a month. New York City worktime figures were computed from BLS retail prices and earnings in mid-August 1959 of $2.17 per hour of production workers in manufacturing in New York City.

[5] For white bread.

[6] First quality (92–93 score).

[7] Large eggs, grade A.

[8] Lowest priced shirt in Moscow.

[9] Brand name: Avtozavodskie.

[10] Spirit blended whiskey.

monthly basic pay rates, and the increase of lowest basic wage rates in connection with the new policy of narrowing the spread in wage rates (discussed later). Take-home pay has also been increased by the 1957 abolition of the special income tax on single persons and heads of small families, the 1957 exemption of additional low earners from income tax payment, and the abolition in 1957 of 50 percent of compulsory bond purchases and, as of January 1, 1958, of all such purchases (before 1957, bond purchases amounted to 3 or 4 weeks' pay annually).

Variations in Earnings. A wide variation in earnings exists in the Soviet Union not only between workers in different sectors of the national economy, as is illustrated in the following tabulation of selected salaries and wages in 1960, but also among production workers in particular industries.

	Monthly earnings, 1960 (in rubles [1])
Scientist (academician)	8,000–15,000
Minister (head of Government ministry or department)	7,000
Opera star	[2] 5,000–20,000
Professor (science)	6,000–10,000
Professor (medicine)	4,000– 6,000
Docent (assistant professor)	3,000– 5,000
Plant manager	3,000–10,000
Engineer	1,000– 3,000
Physician, head	950– 1,800
Physician, staff	850– 1,000
Teacher, high school	850– 1,500
Teacher, primary school	600– 900
Technician	800– 2,000
Worker, skilled	1,000– 2,500
Worker, semiskilled	600– 900
Worker, unskilled	270– 500

[1] The official rate of exchange, as fixed by the Soviet Government, is 4 rubles=US$1. The actual purchasing power of the ruble, however, is more accurately represented by the official tourist rate of exchange of 10 rubles for US$1.

[2] The top salary at the Bolshoi Theater has been reported as 5,000 rubles a month. Outside appearances increase the artist's income.

For example, factory or plant managers receive about 3,000 to 10,000 rubles ($300 to $1,000) a month, not counting such perquisites as the use of a car or a house, compared with the 270 to 500 rubles ($27 to $50) of the unskilled workers. The minimum pay of 270 rubles a month for workers in nonurban areas was fixed by decree, effective January 1, 1957.[6] The range in earnings for each type of position reflects the individual's initiative, his length of service, the amount of supervision and responsibility required of him, the type of industry, and other factors.

A Bureau of Labor Statistics study [7] showed that in 1951, there was a much wider spread in the basic hourly wage rates of production workers in the Soviet steel and construction industries (whose wage structures were typical of most Soviet industries) than in the same industries in the United States. In the Soviet Union, the highest basic wage rate for skilled workers in each of these industries was approximately 3.6 times that of the lowest for unskilled workers, while in the United States, it was found that the ratio was approximately 2.2 in each industry. Since that time, however, the Soviet Government has adopted a policy of decreasing the spread in basic wage rates. The chairman of the U.S.S.R. Council of Ministers' State Committee on Questions of Labor and Wages reported in 1958 [8] that the then prevailing system of 8, 10, and 12 wage grades in various industries would be reduced to a system of 6 or 7 grades where the basic wage rate for the top grade would not be, as a rule, more than twice the lowest wage rate. In implementation of this policy, a system of six basic wage rates was introduced in the construction industry, with a ratio of 2.1 to 1 between the highest and the lowest basic wage rates. In the chemical industry, a system of seven basic wage rates was introduced, with a ratio of 2.3 to 1. Most recently (during the fourth quarter of 1959), a single system of six basic wage rates, with a ratio of 1.8 to 1, was introduced in cotton and linen mills in certain areas of the Soviet Union, and is to be extended to woolen, silk, and all other textile mills during 1960. In all cases, the new low ratios have been or are to be achieved by raising the lower basic wage rates.[9] However, Soviet sources indicate that in some industries, other than the textile industry, extremely high wage rates will be decreased and that take-home pay in some cases will drop as a result of the scheduled introduction of the 7-hour workday.[10]

Real Earnings, United States and U.S.S.R.

Chart 2 and table 2 show that the average Moscow worker has to work much longer than the New York City worker to buy basic consumer goods. For potatoes, he has to work about 3 times as long; for beef and milk, 4 times; for eggs, 8 times; for butter, 9 times; and for sugar, 21 times. The worktime required to buy clothing is 8 to 16 times more in Moscow than in New York City, and reflects a clothing shortage in the Soviet Union. However, as previously indicated, this shortage is not as great as it was in 1953, when the worktime required to buy clothing in Moscow was 10 to 20 times more than in New York City.

The Soviet press frequently boasts that, unlike workers in the United States, Soviet workers have the benefit of low rentals and free medical services. Soviet medical care, however, is free only in the sense that the Soviet population does not pay for it directly on a fee-for-service basis; it is paid for by part of the funds obtained through taxation in the form of increased prices of consumer goods.[11] This taxation constitutes roughly one-half the price of all consumer goods.[12] It is universally admitted in the Soviet Union that housing is the biggest problem in every city.[13] In 1957, the Government decreed a 12-year program to ease this situation.

The English-language newspaper Moscow News on September 16, 1958, reported that, under a 1926 decree still in force, Soviet workers expended only 4 to 6 percent of their monthly earnings for rent, the amount depending on the income of the

[6] Pravda, September 9, 1956.

[7] Wage Spread in the Steel and Construction Industries, U.S. and U.S.S.R. (in Notes on Labor Abroad, U.S. Department of Labor, August 1952).

[8] Pravda, November 25, 1958.

[9] Sotsialisticheskii trud [Socialist Labor] (Moscow, December 1959), p. 47.

[10] For discussion of the 7-hour workday decree, see Monthly Labor Review, January 1960, p. 44.

[11] For detailed discussion of medical services to workers, see Occupational Health Services in the Soviet Union (in Monthly Labor Review, November 1959, pp. 1218-1224). For discussion of the extent of private health insurance available to workers in the United States, see Supplementary Wage Provisions in Major Labor Markets, 1953-59 (in Monthly Labor Review, October, 1959, p. 1131).

[12] For discussion, see Leon M. Herman, Taxes and the Soviet Citizen (in Problems of Communism, United States Information Agency, Washington, D.C., September-October, 1959, pp. 21-26).

[13] Adlai E. Stevenson, in reporting on his visit to the Soviet Union in the New York Times (November 19, 1958, p. 20), said, "In every city, the 'Mayor' told me housing was his biggest problem."

tenant, the building in which he lived, and other factors. However, it was not mentioned that in Moscow, most families lived in only one room [14] and had to share bathrooms and kitchens with other families, and that every family had to pay extra for such utilities as light and heat. One Soviet writer reported that in 1936 (it could be 1960 just as well, because of the Soviet unchanging rent rates), rent accounted for 5.4 percent of the worker's budget, and expenditures for heat, light, etc., accounted for an additional 4.9 percent, for a total of 10.3 percent.[15] In the United States in 1950, the comparable total figure for renters was about 15 percent,[16] but the average family lived in four or five rooms, with its own kitchen and bathroom.[17]

[14] According to data published in the newspaper Vechernaya Moskva [Evening Moscow], August 12, 1958, new housing in 1957 was allocated on a priority basis at the rate of about 6 square meters (about 65 square feet) per person; that is, a family of 4 received floor space equivalent to 2 rooms, each about 12 feet by 11 feet. In the new housing, each family has its own kitchen and bathroom.

[15] N. L. Filatov, Ocherki po ekonomike i finansam sotsialisticheskogo zhilishchnogo khoziaistva [Articles on the Economics and Financing of Socialist Housing] (Moscow, 1947), p. 62.

[16] Study of Consumer Expenditures, Incomes, and Savings (Philadelphia, University of Pennsylvania, 1956–57), Vol. XVIII, table 6-4, p. 65.

[17] 1950 Census of Housing, U.S. Summary, General Characteristics (U.S. Bureau of the Census, 1953), Census Report H-A1, table 9, p. 1-7.

Labor Productivity Trends in Postwar U.S.S.R.

The following tabulation shows that the annual rate of growth of Soviet industrial output per production worker in the past 8 years (1952–59) averaged about 7 percent.

Year	Annual increase (percent)	Year	Annual increase (percent)
1947	13	1954	7
1948	15	1955	8
1949	13	1956	7
1950	12	1957	6.5
1951	10	1958	6
1952	7	1959	7.4
1953	6		

Source: Voprosy ekonomiki [Questions of Economics] (Moscow, April 1956), p. 124. Pravda, Nov. 4, 1957, Jan. 27, 1958, Jan. 16, 1959, and Jan. 22, 1960.

The rate was at its lowest in 1953 and 1958 (at 6 percent), and at its highest in 1955 (at 8 percent). The greatest rates of growth of productivity occurred immediately after the war, in the years 1947 through 1950, when the annual rate of growth fluctuated between 12 and 15 percent. The relatively high rates of Soviet growth, as compared with the United States, reflect the relatively low level of productivity in the Soviet Union.[1] According to a 1959 Soviet study,[2] total output per production worker for the whole national economy in 1957 was 2.5 to 3 times higher in the United States than in the U.S.S.R., and for industry, 2 times higher.

[1] For comparison of labor productivity in the United States and the U.S.S.R., see Output Per Worker in American and Soviet Industry (in Monthly Labor Review, September 1959, pp. 992–994).

[2] A. Aganbegian, Dognat' i peregnat' SShA po urovniu proizvoditelnosti truda [To Catch Up With and Pass the USA in the Level of Labor Productivity] (in Sotsialisticheskii Trud [Socialist Labor], April 1959, pp. 11–22).

Summaries of Studies and Reports

Trade Union Views on European Economic Integration

EDITOR'S NOTE.—*The article which follows was excerpted from a Report on a Study of Trade Union Views on European Economic Community-European Free Trade Area Developments, by Bert Seidman, Economist, AFL–CIO Research Department. The research on which the report is based was sponsored by the European Productivity Agency of the Organization for European Economic Cooperation. Portions of the report were published in the February issue of The American Federationist. For ease of reading, minor changes and text deletions have not been indicated.*

FROM NOVEMBER 23 TO DECEMBER 18, 1959, I was engaged in a study of the views of trade unionists in eight countries of Western Europe toward the developments related to the establishment of the European Economic Community (EEC), the best known feature of which is the European Common Market, and of the European Free Trade Area (EFTA). I visited four countries in the EEC—Belgium, France, Italy, and Germany—and four in the EFTA—Denmark, England, Sweden, and Switzerland.[1]

My discussions were mainly with trade union representatives, both technical staff members and officials in policy positions. In a few instances, I met with government officials. I also met with staff members of the EEC in Brussels. However, I did not meet with representatives of the Belgian trade unions.

A visitor from the United States could not help being impressed with the general atmosphere of economic prosperity that seemed to pervade Western Europe at the end of 1959. The recovery from the 1958 recession appeared to have been completed. In most of the countries I visited, there was full or nearly full employment. Those with whom I met seemed to be generally optimistic regarding both near-term and longrun economic prospects.

This optimism reflected a sense of confidence that the anticipated developments in the EEC and the EFTA would result in economic expansion, prosperity, and continuing full employment in Western Europe. The existing prosperity and expectations of continued favorable economic conditions seemed to be a valid reason for minimizing the disadvantages for specific industries and groups of workers and the resulting transition problems that might arise with the rapid lowering and eventual removal of trade barriers within the EEC and the EFTA. It is generally anticipated that the slack in the relatively few sectors adversely affected by rearrangements in patterns of trade will be taken up in the much broader expanding sectors of the economy.

The favorable economic environment may also help to explain the general lack of concern with cost differentials, to the extent that they are of any appreciable magnitude, and particularly labor cost differentials. Wages, in the sense of total remuneration to the workers including social benefits, are on about the same general level in most of the Western European countries. Certainly variances are much narrower within this region than they are between Western Europe and the United States and Canada at one extreme, or between Western Europe and the less developed countries of Asia, Africa, and Latin America at the other.

For this reason, Western European trade unions do not seem to be too concerned with wage differentials as an economic problem. However, in the EEC, they expect that one important consequence of economic integration will be the narrowing of wage differentials in the course of a general upward movement of wages and living standards in all EEC countries. This upward "social

[1] I did not visit Luxembourg and The Netherlands in the EEC and Austria, Norway, and Portugal in the EFTA.

harmonization" is regarded as a key social objective of the trade unions in the EEC.

EEC and EFTA Policies

The trade unions in the EEC are the staunchest supporters of the broadest possible development of the Community on all levels—economic, social, and political. It is their view that social and economic progress in Western Europe can best be achieved by coordination of not just commercial but also overall economic and social policies. They endorse the commercial policy established by the Rome Treaty, which will mean gradual removal of trade barriers within the Community and a common tariff level among the six countries of the EEC to the outside world. They also favor rationalization and coordination of investment policies, as well as an integrated and coordinated labor market policy for the entire Community. They would also like to see a specific commitment to full employment by EEC. Thus, the EEC policies they support go far beyond the idea of the Common Market per se to the development of European institutions to deal with the economic problems of Western Europe as an entity.

The trade unions in the EFTA countries have already won important social and economic gains which they are extremely anxious to preserve and extend. In the Scandinavian countries, in addition, the unions are, of course, closely associated with the Labor and Social Democratic Governments in power. The unions in the EFTA feel that they might jeopardize the improved living standards they have won if the economic and social policies of their countries were to come under the control of an intergovernmental organization.

For these reasons, they have supported the decisions of their governments not to join in an overall European economic integration. On the other hand, like the trade unions in the EEC, they are generally favorable to reduction of barriers to trade as an effective way of encouraging economic expansion. They also place particular stress on the commitment to full employment by Member States contained in the Stockholm Treaty establishing the EFTA. While trade barriers within the EFTA will be gradually eliminated, keeping pace with the similar development in the EEC, the EFTA will have no common tariff to the outside world.

Despite the undoubtedly wide differences in viewpoint between the unions in the two groups of countries, both groups unreservedly expressed the desire for some kind of a "bridge" between the EEC and the EFTA. It is not yet possible to see how this will be accomplished.

Impact of EEC and EFTA

With some exceptions, those with whom I met were unable to predict the precise impact of the gradual removal of trade barriers within the EEC and the EFTA on specific industries in their countries. As indicated, they generally tended to minimize the negative aspects of changing trade patterns. While the EEC–EFTA developments will undoubtedly result in contracted markets, reduced output, and displacement of workers in some industries in these countries, it is apparently not possible now to pinpoint these effects except in a few instances. Also, as has been mentioned, it is felt that adjustment problems will be eased by the general economic expansion anticipated. However, studies are now underway in the EEC Secretariat to attempt to determine the industries in which problems may arise. Similar studies are being made in several of the EFTA countries.

The following examples of possible adverse impact should be taken as merely illustrative. They do not mean that the overall negative impact is likely to be great; on the contrary, there is every indication that the opposite is true.

In a number of countries, changes which have already begun in the textile industry are expected to continue. In general, they will involve a transformation from diversified production to specialization in textile industries in which output and total employment have already been reduced.

The least efficient branches of the industry are considered to be most vulnerable to competition from the expanding textile industries in Japan and the less developed countries. Moreover, in the long-term view, they are looked upon as undesirable outlets for investment for employment in the more advanced Western European economies. The trend, therefore, in such countries as Denmark, Sweden, Switzerland, and possibly Great Britain, is toward acceptance of the inevitable con-

tinued attrition of the textile industry, with what remains concentrated on highly specialized lines. Special programs have been or are being developed to meet the readjustment problems of displaced workers.

Related problems are anticipated also in other consumer goods industries. In both Denmark and Italy, it was pointed out that behind protective tariff and quota walls, consumer and soft-goods industries especially had developed on a highly diversified basis. The firms in these industries and certainly the industries as a whole have not specialized in their production nor have they standardized their products. Productivity in these industries could remain relatively low only because they did not have to meet foreign competition.

With the reduction and eventual removal of trade barriers within the EEC and EFTA, the situation will be drastically altered. Inefficient firms which could survive in a situation involving only limited competition will be hard pressed to meet the sharper competition from abroad. Some less efficient firms with highly unstandardized output and without up-to-date marketing facilities are likely to be forced to close down with consequent displacement, at least for a temporary period, of their employees. On the other hand, other industries in the same countries are already highly efficient and specialized and will therefore be in an excellent position to meet increased competition from abroad.

Another change in trade patterns foreseen involves the paper industry, particularly in such EFTA countries as Britain, Switzerland, and Sweden. It is felt that because of ready access to raw materials, the lowering of trade barriers in the EFTA will benefit the Swedish industry at the expense of British and Swiss firms. However, there is some possibility that increased paper consumption could ease the adjustment problems in that industry. On the other hand, recognizing its natural advantages, it is likely that Sweden will increase investment in its paper and pulp industry.

The automobile industry is another in which patterns of trade might change considerably with the developments in the EEC and the EFTA. For example, an unfavorable competitive position in EEC countries, on the one hand, and increased competition within the EFTA, on the other, might have an injurious effect on the Swedish automobile industry. Similarly, the broader market in the EEC will undoubtedly affect competition between the French and German automobile industries. At this early stage, while it is possible to foresee that these developments will affect competitive patterns in the European automobile industry, little seems to be known about what the precise consequences are likely to be.

Undoubtedly the few industries cited are only illustrative of the changes that may take place in many other industries. Little information now exists as to the possible impact of the EEC–EFTA developments on specific industries in specific countries. Nevertheless, the aggregate of such effects is expected to be sufficiently limited so that whatever dislocations occur can be effectively handled.

Readaptation

Although the trade unionists I visited generally did not anticipate serious readjustment problems as the result of EEC–EFTA developments, they felt that plans and programs for readaptation were well underway. However, thus far there has been relatively little need for practical application of readaptation programs except in coal mining areas.

In the EEC, the Rome Treaty provides for meeting the problems of readaptation on a Communitywide basis. The European Social Fund, financed by contributions from the six Member States, is prepared to reimburse 50 percent of a Member State's outlays for retraining workers, resettling them if necessary, and for payments to those temporarily unemployed or on short time. Free migration of workers throughout the entire Community should also help in meeting readjustment problems. However, as is indicated later, trade unions greatly favor bringing new industries into areas where workers have been displaced over measures to move workers out of such areas.

In the EFTA, there is no provision for an intergovernmental approach to readaptation problems. However, several Member States have set up, or are in the process of establishing, extensive programs to meet readaptation problems. These programs include retraining, moving allowances, and unemployment compensation during read-

justment periods. In addition, in some cases there are special provisions in collective bargaining contracts for maintaining workers' incomes and training them for new jobs.

To an American observer, it is paradoxical that the Western European countries seem to be firmly committed to effective trade adjustment and readaptation programs even though very little unemployment now exists and it is anticipated that transitional problems are not likely to be serious; whereas in the United States, there seems to be much concern—however valid it may be—about the possible impact of import competition, but proposals urged by trade unions and others for dealing with readjustment problems have thus far not been accepted.

Investment

The importance of investment policies to economic development and full employment in Western Europe was invariably stressed in my conversations with both trade union representatives and public officials. In the EEC countries, the need for coordinated Communitywide investment policies and programs was particularly emphasized. The possibility of achieving this goal is strengthened by the establishment in the Rome Treaty of the European Investment Bank, with a capitalization equivalent to $1 billion, to help finance three types of projects:

1. Projects for developing underdeveloped regions.
2. Projects for modernizing or converting enterprises or for creating new activities which are called for by the progressive establishment of the Common Market and which by their size or nature cannot be covered by the various methods of financing in existence in each of the Member States.
3. Projects of common interest to several Member States which by their size or nature cannot be entirely covered by the various methods of financing in existence in each of the Member States.

Of course, in the EFTA, there will be no overall investment program. However, the Stockholm Treaty establishing the EFTA contains a provision committing each Member State to promote "a sustained expansion of economic activity, full employment, increased productivity and the rational use of resources, financial stability, and continuous improvement in living standards."

Trade unionists in Western Europe are concerned that there should be a national investment policy geared to achievement of three goals:

1. Overall economic expansion and full employment.
2. Increased employment opportunities and higher living standards in less developed regions, such as southern Italy and southern France.
3. Creation of alternative employment opportunities in older areas with declining industries.

There is some concern with the apparent tendency for new private investment to concentrate in highly developed areas and industries. This has at least two undesirable consequences. First, it does not lead to the investment urgently required in the less developed regions. Second, it could lead to overinvestment and eventual idle capacity in the highly developed areas. For example, in Germany, it was pointed out to me that the automobile industry is rapidly expanding its plant capacity without knowing the long-term demand for German cars.

The trade unions generally want investment to be directed in potentially expanding industries and areas and not to be "wasted" on industries which inevitably must contract. However, some differences of opinion were expressed with respect to treatment of declining industries, particularly on the desirability of taking measures to improve the efficiency and thus the competitive ability of more efficient plants even in declining industries. Those who favored such an approach felt it would ease the adjustment problems for workers in such industries, particularly when they are employed in plants located in generally depressed areas.

There is general agreement on the need for directing investment—private, if possible, and public—to depressed or less developed areas. As far as the latter are concerned, the view was expressed that low wages per se have not attracted industry. Thus, private investment has not gone into southern Italy, for example. Private entrepreneurs have feared that they would lose markets during the initial period of operation in such areas because of untrained labor forces, low productivity, poor quality of products, etc.; they have generally been attracted to industrialized areas where they could find a skilled working force and achieve greater efficiency. With varying degrees of government pressure and assistance, at least some of this in-

vestment has also gone or will go to areas, such as Lancashire in England, where older industries are declining.

However, the lack of sizable investment in less developed regions has meant an increasing gap between them and the industrialized sections. To try to meet this problem, public agencies are now spurring investment in "infrastructure" projects in southern Italy—airports, roads, etc. The trade unions want these efforts to be followed by investment through "public holdings" (joint public-private enterprises) in basic industries which would be located in that region. This should be supplemented by private investment integrated into the overall economic development of the region. At the same time, the unions call for expanded and improved vocational training programs so that qualified workers will be available to man the new industries.

Social Harmonization

"Social harmonization," from the viewpoint of the trade unions in the EEC, refers to gradual equalization of social benefits and working and living conditions of workers in the six countries. It is viewed as a long-term objective to be achieved as a result of economic integration. It is regarded as a consequence of, not a necessary precedent to, economic integration. Moreover, the trade unions regard social harmonization as essentially a social, not primarily an economic, question.

However, the question of social harmonization was originally raised, at the time the Rome Treaty was being formulated, as an issue involving labor costs. The French, in particular, claimed that because French employers were required to pay relatively high social charges, they would be placed in an unfavorable competitive position with the lowering of trade barriers in the EEC. In an effort to meet these contentions, the treaty provided for the principle of equal pay for equal work for men and women, harmonization of methods in determining overtime compensation on the basis of the French standard, and maintenance of at least the existing situation with respect to paid vacations. There were no provisions relating to wages per se or other social charges.

The unions have taken the position that social harmonization cannot be legislated in the EEC but that the existence of EEC institutions and the economic development fostered by the EEC will permit the achievement of social harmonization, which probably could not be achieved in the absence of these institutions and an expanded economy.

The goal of trade unions in the EEC with respect to social harmonization is expressed in article 117 of the treaty, which commits Member States to "promote improvement of the living and working conditions of labor so as to permit the equalization of such conditions in an upward direction." In addition to pressing through the EEC institutions to achieve this objective, the trade unions are apparently also considering ways of furthering these ends through trade union action, including the possibility of gradually developing coordinated collective bargaining programs wherever they may be appropriate and effective.

Erratum

In the Wage Chronology: Pacific Gas & Electric Co., which appeared in the February 1960 Review, the average amount of wage adjustment in footnote 4 to Table A—General Wage Changes was incorrectly stated. The footnote should read: These changes amounted to 0.37 cent an hour averaged over all workers in the bargaining unit.

Minimum Wages in Puerto Rico Under the FLSA

EDITOR'S NOTE.—*The following article was excerpted from Part III of the report submitted by the Secretary of Labor on February 15, 1960, to the Congress in accordance with the requirements of section 4(d) of the Fair Labor Standards Act. Minor changes in wording were made and ellipses to denote omissions were not indicated.*

Minimum Wages in Puerto Rico Since 1956

Effects of Minimum Wage Changes Upon Economy. For the purposes of this analysis, Puerto Rican industries have been classified into three broad groups. Group A is composed of three industries characterized by longrun declines in employment (sugar manufacturing, tobacco stemming and redrying, and industry segments containing home needlework). Group B consists of all other manufacturing industries. This group contains most of the industries in direct competition with Mainland firms; many of the plants in these industries are controlled by Mainland interests. Group C includes nonmanufacturing industries which are subject to the Fair Labor Standards Act; these industries provide utilities and services for the Commonwealth economy.

Before the start of annual review (July 1, 1956), minimum wage rates in Group A industries ranged from 22.5 cents to 75 cents an hour; in Group B industries, 26 cents to $1; in Group C industries, 33 cents to $1. At the end of 1959, the lowest minimums in Group A, B, and C industries were 25 cents, 43 cents, and 80 cents, respectively. The upper limit of the range in each case was $1.

The following tabulation presents the median rate (weighted by the number of employees in the industry or classification to which it applies) for each group before July 1, 1956, and after each of the first two annual reviews following that date:

	Weighted median minimum rate		
	Before July 1, 1956	*After first review*	*After second review*
Group A industries	$0.40	$0.49	$0.51
Group B industries	.60	.75	.80
Group C industries	.75	1.00	1.00

The increase made during the first review amounted to 23 percent in Group A industries, 25 percent in Group B industries, and 33 percent in Group C industries. In the course of the second review, the increases were of much smaller magnitude, amounting to 4 percent for Group A industries and 7 percent for Group B industries. No increase in the median is reflected in the second review in Group C as more than half the employees were in industries for which the minimum rates were raised to $1 during the first review. If industries for which the $1 minimum rate was established during the second review are not included in computing the medians, the changes between the second and third reviews were 10 cents or 14 percent for the Group B industries and 5 cents or 7 percent for the Group C industries.

Although most industries have been reviewed a third time since July 1, 1956, it is not possible to present a composite picture of the effects of this review. However, in general the magnitude of the changes during the third review were less than during the earlier reviews. In the Group A industries, the minimum rates of one-fifth of the classifications were raised from 6 to 10 cents, and the rest 5 cents or less. None was raised to $1. In the Group B industries, one-sixth of the classifications were increased more than 10 cents, more than one-third were increased from 6 to 10 cents, and the rest 5 cents or less. Three classifications were brought up to $1. The two classifications in Group C which have been reviewed a third time had increases of 10 cents or less.

Total employment in the Group B industries rose by 12 percent between 1956 and 1957, the period during which minimum rates were increased the most.[1] Employment continued to increase in the following 2 years, despite additional increases in the minimum wage and the 1958 recession, though at a considerably lower rate.

Employment in the declining industries of Group A dropped significantly during the same period. Between fiscal 1956 and 1958, home needlework employment fell from 25,000 to 12,000. Employment in tobacco manufacturing during the

[1] Section 8(b) of the Fair Labor Standards Act sets forth the standards to be followed by industry committees in determining minimum wage rates, as follows: "The committee shall recommend to the Secretary the highest minimum wage rates for the industry which it determines, having due regard to economic and competitive conditions, will not substantially curtail employment in the industry, and will not give any industry in Puerto Rico . . . a competitive advantage over any industry in the United States outside of Puerto Rico. . . ."

same period decreased from 9,000 to 5,000. The decline in sugar manufacturing was from 8,000 to 7,000.

Published data on total employment for Group C industries show little change between fiscal 1956 and 1958.

Both groups of manufacturing industries, Groups A and B, make extensive shipments to the Mainland. Group C industries provide local services. Group A includes home needlework products which are mainly in competition with exports from low-wage countries to the Mainland, and the shipments of sugar, which are limited by a quota system under international agreement.

Products of Group B industries are in competition with Mainland production. These are for the most part products of newer industries and are manufactured in plants [promoted by the Commonwealth's Economic Development Administration]. These plants receive various types of assistance from the Commonwealth and are controlled to a significant degree by Mainland interests. Shipments of the products of these industries to the Mainland have increased considerably in recent years. For example, the value of shipments of machinery and vehicles (particularly electrical machinery and household appliances) rose from $9 to $35 million between fiscal 1954 and 1958. Nevertheless, in the aggregate, such shipments to the Mainland are still small in relation to Mainland production.

In recent years, the value of goods imported by Puerto Rico from the Mainland has consistently exceeded the value of exports to the Mainland. In fiscal 1958, such imports amounted to $620 million compared with total shipments to the Mainland of $442 million.

During fiscal years 1957 and 1958, the differentials between earnings in Puerto Rico and on the Mainland were narrowed. For all manufacturing industries, the ratio of average hourly earnings in Puerto Rico to the average for the Mainland rose from 33 percent to 39 percent between October 1956 and October 1958. When Puerto Rican rates in October 1958 are compared with rates in the low-wage Southern States, the ratio is 51 percent.

When the comparison is limited to the Group B industries, the ratio of wages in Puerto Rico to wages on the Mainland is slightly higher. The average for the group in October 1958 in Puerto Rico was 41 percent of the average for these industries on the Mainland and 54 percent of the average for these industries in the Southern States.

Minimum Wages and Economic Growth. A major problem confronted in revising minimum wages for an underdeveloped area such as Puerto Rico which is engaged in a "bootstrap" operation is to set the wage high enough to improve living standards of Puerto Rican workers and still permit the continuation of industrial expansion.

The policies of the Puerto Rican government have emphasized the attraction of capital intensive (that is, industries which depend on large capital investment), high productivity industries to the Island. Such industries have generally been able to adjust to minimum wage rates higher than the rates appropriate for the declining industries.

Data indicate that extensive minimum wage increases since July 1, 1956, did not, on an overall basis, result in curtailing employment but rather that the growth of the economy continued. In fact, higher minimum rates may have stimulated mechanization in existing industries and encouraged the channeling of capital into the capital intensive industries. However, because of the concomitant decline of home needlework and other labor intensive industries (characterized typically by part-time work), there was no net increase in employment. The employment problem in its turn was mitigated by emigration to the Mainland.

Effects of Minimum Wages in Six Industries. Data for six Puerto Rican industries were analyzed to determine the effects of minimum wages on earnings, employment, and economic growth. The full and the abbreviated titles of the six industries are corsets, brassieres, and allied garments (corset); paper, paper products, printing and publishing (paper and printing); shoe and related products (shoe); sweater and knit swimwear (sweater); women's and children's underwear and nightwear (underwear); and women's blouse and neckwear (blouse).

These industries were chosen for a number of reasons. Each is significant in the Puerto Rican economy and their combined work forces represent approximately 15 percent of the total covered employment on the Island. They include a considerable range of products and cover both highly mechanized firms with the most modern and

efficient machinery and firms which use homeworkers to produce primarily hand-sewn items.

Each industry has had a large increase in minimum wage rates since 1955; at the same time, there have been appreciable variations in the amounts of increase. The industries are highly competitive and therefore relatively sensitive to minimum wage changes. On the other hand, the effects of changes in minimum wage rates can be isolated to a greater degree in these industries than in most other industries. Finally, considerable data had been collected for the individual firms in the industries in connection with preparation of economic reports for use by industry committees.

The minimum rates for each of the six Puerto Rican industries studied were reviewed in each of the calendar years 1956–58. In addition, the minimum wage rate for the shoe industry was reviewed a fourth time in 1959. As shown in the accompanying table, each of the reviews resulted in increased rates. With the exception of rates for hand-sewing operations, the minimums ranged from 40 cents to 60 cents prior to the first of these annual reviews. The minimums for the same activities ranged from 55 cents to $1 in 1958. The fourth review of the shoe industry raised the rate for that industry from 55 cents to 59 cents in 1959.

Almost uniformly, the first of the increases was the largest and the last was the smallest, although there was considerable variation from industry classification to industry classification in the magnitude of minimum wage increases. For operations other than hand-sewing, increases over the entire period varied from 19 cents for the shoe industry (including the fourth revision) to 60 cents for the pulp, paper, and paperboard classification. In terms of percentages, the increases over the entire period ranged from 45 percent for the corset industry to 150 percent for the pulp, paper, and paperboard classification.

The rate established in 1958 for hand-sewing operations of the underwear and blouse industries was 48 cents an hour. This rate applies, for the most part, to homework. When applied to homeworkers, the rates in hand-sewing serve as the basis for establishing piece rates. Consequently, an increase in hand-sewing rate generally results in a proportionate increase in piece rates.

RELATION OF AVERAGE EARNINGS

In Puerto Rican industries, average hourly earnings tend to be close to the minimum wage. At the time of the first wage surveys in 1956, prior to the period of annual review of minimum rates, average hourly earnings as a percentage of the minimum rate were as follows:

	Percent
Corset	115
Paper and printing	155
Shoe	127
Sweater	127
Underwear	109
Blouse	118

NOTE: In this tabulation and in those which follow, the data for the underwear and the blouse industries pertain to operations other than hand-sewing; the data for the paper and printing industry are for a composite of all classifications and plants within the industry except those raised to the $1 minimum in the 1957 wage order for which 1958 wage data are not available.

The relatively high percentage for the paper and printing industry reflects the fact that the minimum rate for the industry had not been changed for close to 5 years prior to annual review.

If all employees in an industry were to receive percent increases in wage rates, equivalent to the percent increase in the minimum wage, the ratios of average hourly earnings to the minimum rate would not change after a new minimum wage became effective. In Puerto Rican industries, however, the ratios declined over the period covered by this study in all except the corset industry, indicating that wage rates for the higher paid jobs tended to increase less than wage rates for jobs paid for at the minimum rate.

By the time of the third survey period (calendar year 1958), average hourly earnings as a percentage of the minimum rate ranged from 105 to 122.

	Percent
Corset	117
Paper and printing	115
Shoe	122
Sweater	108
Underwear	105
Blouse	109

The range of 105 to 122 percent for the third period is similar to the range for low-wage manufacturing industries on the Mainland shortly after the minimum wage had been raised from 75 cents to $1 on March 1, 1956. Average hourly earnings as a percentage of the $1 minimum rate are shown

INCREASES IN MINIMUM WAGE RATES UNDER THE FAIR LABOR STANDARDS ACT IN SELECTED PUERTO RICAN INDUSTRIES, PRE-1956–58

Industry	Minimum hourly wage rates in calendar year of effective date (cents)				Cents-per-hour increase between—				Percent increase between—			
	Pre-1956	1956	1957	1958	Pre-1956 and 1956	1956 and 1957	1957 and 1958	Total increase	Pre-1956 and 1956	1956 and 1957	1957 and 1958	Total increase
Corsets, brassieres, and allied garments [1]	55	70	75	80	15	5	5	25	27	7	6	45
Paper, paper products, printing and publishing:												
General	40	60	[2] 75	85	20	15	10	45	50	25	13	113
Paper bag	45	70	95	100	25	25	5	55	56	36	5	122
Pulp, paper, and paperboard	40	75	93	100	35	18	7	60	88	24	8	150
Paper box	55	75	85	95	20	10	10	40	36	13	12	73
Daily newspaper and news syndicate	60	85	100		25	15		40	43	18		67
Shoe and related products	40	46	51	[3] 55	6	5	4	[3] 15	15	11	8	[3] 38
Sweater and knit swimwear	50	77½	[4] 90	96	27½	12½	6	46	55	16	7	92
Women's and children's underwear and nightwear:												
Hand-sewing operations:												
Silk, rayon, and nylon	26	35	45	48	9	10	3	22	35	29	7	85
Cotton and infants'	22½				12½			25½	56			113
Other than hand-sewing operations:												
Silk, rayon, and nylon	48	56	66	70	8	10	4	22	17	18	6	46
Cotton and infants'	40				16			30	40			75
Women's blouse and neckwear:												
Hand-sewing operations	35	40	45	48	5	5	3	13	14	13	7	37
Other than hand-sewing operations	45	68	66	70	15	6	4	25	33	10	6	56

[1] A union agreement in 1956 set the plant minimum rate for employees in the bargaining unit at 5 cents above the legal minimum; the increase in the union minimum between pre-1956 and 1956 is 20 cents or 36 percent and the total increase is 30 cents or 55 percent.

[2] In addition, a minimum of $1 was set for certain specific activities previously classified in general classification.

[3] In 1959, the minimum rate for this industry was increased another 4 cents (7 percent) to 59 cents per hour, making the total increase 19 cents or 48 percent.

[4] A rate of 77½ cents was retained for hand-sewing operations; this was the only wage order for the sweater industry specifying a different rate for hand-sewing operations.

below for 12 low-wage industry segments which were surveyed for the study of the effects of the $1 minimum.

	Percent
Raw sugar, Louisiana	110
Sawmills, South	107
Tobacco stemming and redrying, Kentucky, North Carolina, Virginia	108
Work shirts, Southeast	112
Processed waste, South	109
Wooden containers, South	111
Men's and boys' shirts, United States	119
Children's seamless hosiery, Southeast	115
Fertilizer, South	120
Men's seamless hosiery, United States	120
Cigars, Southeast	119
Citrus canning and freezing, Florida	119

After the increase in the minimum rate, average hourly earnings in these low wage segments were within 20 percent of the minimum wage rate.

REQUIRED VS. ACTUAL INCREASES

A useful indication of the direct effect on wages of increases in the minimum wage is the magnitude of the required percent increase in hourly wage bills. In computing the increase required by a change in the minimum, the survey data for the period prior to the change in the minimum are used. The first step in the computation is to determine the increase in the hourly wage bill for the industry as a whole which would result if the wages of all employees paid less than the new minimum were raised to that amount. This increase is then expressed as a percentage of the hourly wage bill reflected in the survey data.

The average hourly earnings for an industry are obtained by dividing the hourly wage bill by the number of employees, and the required percent increase in the hourly wage bill is identical with the required percent increase in average hourly earnings.

The first surveys provide a basis for estimating the percentage increases in wage bills required by the minimum rates which became effective in 1956. The estimated percentage increases ranged from 6 to 39.

	Percent
Corset	17
Paper and printing	10
Shoe	6
Sweater	39
Underwear	18
Blouse	19

The percent increase in hourly wage bills required for the Puerto Rican industries tended to be higher than the percent increase required for

the 12 Mainland industry segments, which ranged from 4 to 17.

Since 1956, all six Puerto Rican industries have had at least two additional minimum wage increases; the Mainland rate has remained at $1.

Comparison of the data obtained from the first and second wage surveys indicates the actual increase in average hourly earnings which occurred over the period. If there were no changes in wage rates other than those required by the minimum wage, and if there were no changes in the proportions of workers in each interval of the wage distribution above the minimum level, the actual increase in average hourly earnings would be the same as the estimated required increase in hourly wage bills. Thus, the excess of the actual percent increase in average hourly earning over the percent increase in hourly wage bills directly required by the new minimum is a rough measure of the extent to which increases in wages other than those required by law were made.

	Percent increase in average hourly earnings		
	Required	*Actual*	*Excess of actual over required*
Corset	17	30	13
Paper and printing	10	18	8
Shoe	6	14	8
Sweater	39	42	3
Underwear	18	22	4
Blouse	19	26	7

In the shoe industry, the actual increase in average hourly earnings was more than twice the required increase. At the other extreme, in the sweater industry, the actual increase was only 8 percent more than the required increase.

For all but one of the six Puerto Rican industries, the percent increase in the hourly wage bill required by the minimum wage change of 1957 was less than that required by the minimum wage change effective in 1956. For all industries, the actual increase which occurred between the second and third survey periods was smaller than the increase occurring between the first and second.

	Percent increases in average hourly earnings		
	Required	*Actual*	*Excess of actual over required*
Corset	1	7	6
Paper and printing	11	16	5
Shoe	4	7	3
Sweater	12	20	8
Underwear	13	15	2
Blouse	7	7	0

CHANGES IN WAGE STRUCTURE

The proportion of workers whose wages were at the minimum wage level was already substantial (no less than two-fifths) in five of the six industries studied prior to the 1956 increases in minimum wage rates. In each of these five industries, the minimum wage had been recently raised. On the other hand, the sixth industry, paper and printing, which had not had a minimum wage adjustment in almost 5 years, had relatively few workers at the minimum wage level at the time of the first surveys.

The third wage surveys in 1958, coming after two successive increases in the minimum rates, showed increased concentrations of workers at the minimum in four of the six industries. A fifth, the shoe industry, showed an increase in the proportion (to 56 percent) in the 1959 wage survey which followed. For most of the industries, the minimum wage rate became, in effect, the prevailing wage rate. The following tabulation shows the percentage of workers at or below the minimum wage level at the time of the first and third surveys.

	First survey	*Third survey*
Corset	44	15
Paper and printing	8	45
Shoe	42	39
Sweater	58	62
Underwear	70	76
Blouse	43	61

In the 12 low-wage industry segments of the Mainland, in a preminimum period, the percent of workers paid 75 cents an hour, the minimum rate then in effect, ranged from 6 to 37. Thus, the extent of concentration of employees in the Mainland industries at the 75-cent rate, in a period after the minimum had been in effect for about 6 years, was much lower than for all of the Puerto Rican industries except paper and printing.

After the $1 minimum wage became effective on the Mainland, the percent of employees paid at the minimum rate ranged from 22 to 70.

At the time of the first surveys of the six Puerto Rican industries, a substantial proportion of the employees were paid at rates more than 10 cents in excess of the minimum rate. The range was from 12 percent for underwear to 69 percent for paper and printing. After two upward revisions in the minimum wage, substantial proportions of the employees were still paid at rates more than

10 cents in excess of the higher minimum levels. For two of the six industries, the percentages had increased. These data suggest that earnings differentials were retained to a considerable extent.

	Percent of workers paid more than 10 cents above minimum	
	First survey	*Third survey*
Corset	23	38
Paper and printing	69	29
Shoe	29	28
Sweater	19	21
Underwear	12	9
Blouse	23	19

The objective of the industry committee program in Puerto Rico is to bring all minimum rates to $1 an hour. With the exception of some segments of the paper and printing industry, the rates for the six surveyed industries are below $1. Nevertheless, significant proportions of the workers in some of these industries were being paid $1 or more at the time of the third survey. The proportions range from 2 to 28 percent, as shown below:

	Percent
Corset	14
Paper and printing	28
Shoe	6
Sweater	24
Underwear	2
Blouse	5

EMPLOYMENT AND INDUSTRY GROWTH

On the Mainland, the increase in the minimum wage to $1 an hour had apparently resulted in declines in employment in many of the low-wage industry segments studied. In Puerto Rico, adverse effects of minimum wages on employment levels might have a much more serious effect on the welfare of workers in view of the extensive unemployment on the Island. The rates set in Puerto Rico may be considered too high if they result in disemployment or if they interfere with economic growth.

In five of the six industries in Puerto Rico, the studies do not disclose evidence of interference with economic growth. In these five industries, the number of plants found to be in operation and the number of workers employed increased between the time of the first survey and the time of the third survey. There was a decline in the number of plants and in employment in the blouse industry.

	Number of plants		*Number of workers*	
	First survey	*Third survey*	*First survey*	*Third survey*
Corset	27	41	3,547	5,219
Paper and printing	54	83	1,654	1,729
Shoe	6	7	1,081	1,339
Sweater	12	20	1,192	1,985
Underwear, excluding hand-sewing	22	24	1,324	1,403
Blouse, excluding hand-sewing	30	21	1,294	1,047

All establishments of the expanding corset, shoe, and sweater industries are affiliated with Mainland firms and a great majority are exempt from Commonwealth taxation. In the corset industry, a further increase in plants and employment occurred by the time of the 1959 survey, bringing the number of plants to 45 and employment close to 6,000. In the shoe industry, also, employment growth continued after the third survey period, when five new plants and one whose operations had been suspended for 2 years went into production. As a result, between the first and the fourth surveys, the number of establishments in the shoe industry doubled and employment went up by 43 percent.

The substantial increase in the number of firms and the moderate increase in the number of employees in the paper and printing industry reflect a change in classification rather than an increase. In the third payroll period, a larger proportion of the employees of commercial printing plants were engaged in activities subject to the Fair Labor Standards Act. The printing segment of this industry is made up of local enterprises, and its growth is related to the general economic growth of the Island. Two additional plants began manufacturing paper products after the third wage survey, one of them larger than any existing plant.

Both the underwear and the blouse industries have had a high degree of plant turnover, due in part to plant reclassifications because of product change. For the underwear industry, the first and third surveys reveal a net increase in both the number of plants and in employment.

In the blouse industry, there has been a marked net decline in the number of plants and employment from the first to the third survey. This reflects a decline of 23 percent in the quantity and 35 percent in the value of Puerto Rican shipments of blouses to the Mainland between 1956 and 1958.

Experiences With the Introduction of Office Automation

THE INTRODUCTION of electronic data processing in business offices seems to imply important changes in employment for a broad class of workers and has brought concern over the problems of adjustment to this innovation. In an attempt to find out what problems are involved within an office and how they are being solved, the Bureau of Labor Statistics undertook a study of 20 offices which had installed large-scale electronic computers for processing business data.[1] This article summarizes the principal findings of the study, which covered a variety of subjects: The objectives and results of electronic data processing; the extent of displacement and reassignment of office employees; the practices regarding transferring, retraining, and selecting employees for new occupations; the characteristics of employees whose jobs were eliminated and who were assigned to new positions; and some of the implications of office automation for middle-aged and older employees.

The introduction of a large-scale electronic computer provided a means of achieving not only a larger clerical output in routine activities with the same or fewer employees—a major objective—but also economies in processing time, space, and equipment and greater accuracy. In some offices which were part of industrial operations, the increased flow of information on inventory and other operating conditions, which was previously uneconomical to acquire, enlarged the clerical workload, but by extending management's control, opened up the possibility of achieving savings in nonclerical activities.

About one-third of the employees in the office units directly affected by the change were shifted to other positions. Only a negligible number were laid off. The advanced planning that took place during the long preparatory period was useful in easing the impact of these changes. Such planning involved informing and consulting with employees and their organizations about the changes, establishing procedures for reassigning employees whose positions were being eliminated, and the minimizing of displacement through attrition and turnover. Since the introduction is a long continuing process, with new applications being made step by step, the full impact was not felt at the time the new equipment began to operate.

While the introduction of electronic data processing reduced the demand for employees in routine positions, it opened up a relatively small number of better paid positions for programming and operating the new systems. Administering aptitude tests for these new jobs, selecting a staff, determining salaries and providing the extensive training necessary, both in the classroom and on the job, were critical matters requiring timely attention. Where the offices were organized by unions, one of the key issues that arose was whether the new positions would be within the collective bargaining unit.

The offices in this study—the smallest employed 700 workers—were able to staff their electronic units primarily through promotions. Those selected were chiefly men in their late twenties with some college education and some company experience in accounting and related work. Few women, older workers, or employees from the affected units were chosen for the newly created positions.

Method of Data Collection and Coverage

Information for the study was collected by BLS representatives through personal visits to offices and interviews with management and union officials who had direct knowledge of the changes. Such information consisted of (1) statistical data compiled from personnel records and (2) nonstatistical reports about policies and practices.

The study was limited to 20 private industry offices which were among the first to utilize large electronic digital computer systems for business purposes. These computers sell for $1 million or rent at over $25,000 a month. The offices in the study had at least a year's operating experience

[1] See Adjustments to the Introduction of Electronic Data Processing, forthcoming BLS Bull. 1276 (1960). The study presents information on the practices of each office in reassigning, selecting, and training employees in addition to statistical data on the group as a whole. For a report on the vocational implications of electronic data processing, see Automation and Employment Opportunities for Office Workers, BLS Bull. 1241 (1958). For detailed descriptions of the new jobs, see Occupations in Electronic Data Processing Systems, U.S. Department of Labor, Bureau of Employment Security, 1959.

by mid-1957 when the study was planned. They accounted for more than one-half of the companies which had experience in applying large-scale electronic data-processing systems to clerical work at that time.

Government agencies, firms using computers primarily for engineering, scientific, or industrial purposes, and offices with only small- and medium-size computers were outside the scope of the study. The implications of computer service centers were also not covered.

The 20 offices studied were the central or home offices of some of the largest corporations in the American economy, ranging in size from about 700 employees to about 14,000, with an average of 4,000. Most were in industries that have grown relatively rapidly in the past decade—public utilities, air transportation, insurance, chemicals, electrical machinery, and aircraft. Others were in the petroleum refining, steel, and railroad industries. Seven of the 20 were in insurance.

Planning for Transition

Installing a computer involved a sequence of administrative, technical, and personnel changes that, on the average, spanned 3 years. The long period of preparation and planning needed for the introduction of electronic data processing was particularly useful in avoiding extensive dislocation of employees.

Many offices took advantage of the gradual unfolding of this major change to inform employees in advance about the change and to make explicit their policies about job security. A majority of the offices made statements giving assurance that no employee would lose his job on account of the computer. Hiring was curtailed so that vacancies created by quits, deaths, retirement, and leaves of absence could be filled by employees who might be affected.

In the seven offices with collective bargaining relationships, the union constituted the channel for informing employees about the changes. Existing contracts provided machinery for the application of seniority rules in displacement and transfer and for the determination of wage rates for new positions. In some offices, provisions regarding advance notice and consultation and retraining were negotiated as a result of the change. Agreement was reached in one railroad office to apply the system of displacement benefits that had been in force for workers displaced in the coordination of lines.

Impact of Electronic Data Processing

Extent of Displacement and Reassignment. A year following the introduction of the computer, about one-third of the 2,800 employees in units whose work was placed on the computer had been reassigned to other positions, either within the same unit or elsewhere in the office. (See table 1.) A majority remained in the same position. Close to one-sixth had quit, retired, died, or had taken leave of absence. Nine persons had been laid off.[2] Employment in the affected group was about 25 percent less at the end of the year.

A little over 80 percent of the employees affected by the change were in routine jobs involving

TABLE 1. JOB STATUS OF EMPLOYEES OF THE AFFECTED UNITS 1 YEAR AFTER INTRODUCTION OF ELECTRONIC DATA PROCESSING, SELECTED AGE GROUPS [1]

Type of job change	All ages		Under 45 years		45 years and over	
	Number	Percent	Number	Percent	Number	Percent
All employees	[3] 2,808	100.0	2,164	100.0	644	100.0
No change in position	1,498	53.3	1,059	49.0	439	68.2
Position changed	883	31.4	724	33.5	159	24.7
Reassigned within same work unit	552	19.7	460	21.3	92	14.3
Transferred	331	11.8	264	12.2	67	10.4
To computer unit	52	1.9	46	2.1	6	.9
To other units	279	9.9	218	10.1	61	9.5
Quits, layoffs, and other separations	427	15.2	381	17.6	46	7.1
Quits	328	11.7	322	14.9	6	.9
Retirement and deaths	42	1.5	3	.1	39	6.1
Leaves of absence	35	1.2	34	1.6	1	(4)
Discharges	13	.5	13	.6		
Layoffs	9	.3	9	.4		

[1] Data relate to employees in affected units of 18 offices, 6 months prior to introduction.
[3] Total excludes 7 employees for whom data were insufficient.
[4] Less than 0.05 percent.

NOTE: Because of rounding, sums of individual items may not equal totals.

[2] The method of determining the extent of displacement, reassignment, and occupational shifting was to record the changes in status that took place among employees in those units over a period of 18 months, beginning 6 months before and ending 1 year after the installation. These periods were selected in order to exclude, as much as possible, the effects of factors other than the immediate installation of the computer. This does not mean that additional groups will not be affected as the use of electronic data processing is extended. Many offices with a large volume of paperwork indicated that the introduction would be a gradual process continuing over some years.

posting, checking, and maintaining records; filing; computing; or tabulating, keypunch, and related machine operations. (See table 2.) The rest were mainly in administrative, supervisory, and accounting work. Only a little over 4 percent were engaged in correspondence, stenographic, and secretarial jobs, i.e., the less routine clerical jobs.

Most of the employees still employed in the offices 1 year after the installation, continued to do the same type of work. About 16 percent of this group were shifted to a different type of routine work, e.g., from computing to posting and checking. A little under 2 percent, a total of 52 persons, were transferred from the affected group to electronic data-processing jobs. Most of these had been doing administrative, accounting, or tabulating-machine work; only a few, chiefly for equipment operation, came from routine clerical work.

Close to one-third of the employees in the affected group had been promoted to a higher grade. A negligible number had been downgraded. Most of the upgrading involved employees under age 45 and to some extent reflected promotions which would have taken place regardless of the advent of the new equipment.

The relatively favorable experience of these offices reflected company policies to provide job security, the high rate of labor turnover during a period of prosperity, and in a few offices, a greater workload to handle information which had previously been uneconomical to acquire. Since these were large offices, employees could be transferred to comparable clerical positions requiring a relatively short period of on-the-job retraining.

Effect on Growth of Office Employment. The groups whose work was placed on the computer represented, on the average, only about 5 percent of total office employment. The proportion varied, depending on the nature of the application and the degree of mechanization.

The immediate overall effect of electronic data processing suggests some retardation in the growth of office employment, particularly routine part-time jobs, for which women were hired. Over the 4 years from December 1953 to December 1957, total office employment at 17 offices for which data were available increased on the average by 7 percent. This increase, however, was less than the 15-percent rise reported for clerical and kindred workers in the Nation as a whole. In 6 of the 17 offices, the increase was greater than 15 percent; in 7 less, and in 4, there was a decrease primarily because of business conditions.

Changes in Grade Structure. The introduction of electronic data processing raised the average grade or skill of office occupations, but only to a slight extent. With the elimination of low-paid jobs

TABLE 2. PERCENTAGE DISTRIBUTION OF EMPLOYEES IN AFFECTED UNITS, BY OCCUPATIONAL CLASSIFICATION 1 YEAR AFTER COMPUTER INSTALLATION

Occupational classification	Employment 6 months prior to computer installation		Occupational classification												
	Number	Percent	All groups	1	2	3	4	5	6	7	8	9	10	Electronic data processing	Separated
All groups	2,772	100.0	100.0	1.6	6.2	6.0	22.3	15.2	0.1	1.3	14.1	15.1	1.4	1.8	15.0
1. Administrative	41	1.5	100.0	82.9	------	4.9	------	------	------	------	------	------	------	7.3	4.9
2. Supervisory	176	6.3	100.0	3.4	80.7	2.8	2.3	0.6	------	------	------	2.3	------	3.4	4.5
3. Accounting and professional	157	5.7	100.0	1.3	3.2	81.5	------	------	------	------	------	------	------	8.3	5.7
4. Posting, checking, and maintaining records	719	25.9	100.0	------	.4	1.1	68.6	4.0	0.4	0.4	3.5	1.7	1.5	.4	17.9
5. Computing and statistical	492	17.7	100.0	------	1.4	2.2	7.1	73.4	------	------	1.8	.4	.6	.4	12.6
6. Correspondence work	[2] 3	.1	100.0	------	------	------	------	------	------	------	------	------	------	------	------
7. Stenographic and secretarial	34	1.2	100.0	------	------	------	2.9	------	------	85.3	2.9	------	------	------	8.8
8. Keyboard or keypunch machine operations	447	16.1	100.0	------	.2	.4	4.5	1.8	------	1.1	72.9	2.2	------	.7	16.1
9. Tabulating and related machine operations	618	22.3	100.0	.2	2.4	1.3	5.5	3.4	------	------	3.6	62.0	1.0	3.1	17.6
10. Sorting, routing, classifying, and filing	85	3.1	100.0	------	------	------	34.1	1.2	------	------	9.4	8.2	23.5	------	23.5

[1] Excludes 43 employees for whom data were insufficient.
[2] Insufficient data to warrant presentation of percentage distribution.

NOTE: Because of rounding, sums of individual items may not equal 100.

that were not filled as they became vacant during the transition, the higher paid group became a larger proportion of the total in the affected group. The classification of the new electronic data-processing positions at the top of the office pay structure also tended to upgrade the pattern. Since these groups at the bottom and the top of the pay structure constituted but a small proportion of total office employment, the net effect on the structure of an entire office was small.

New Jobs. A small number of new positions were created to operate, program, and manage electronic data-processing activities. The average number of persons employed in these units at the time of the study was 29. Close to 7 out of 10 persons in electronic data-processing work were in programming and planning positions; about 25 percent were engaged in operating the equipment; and 8 percent were in administrative and supervisory occupations.

Wage and salary rates were generally fixed through existing job evaluation and personnel classification systems and, where collective bargaining was in force, with union participation. The offices generally rated these new positions at somewhat higher grades than jobs in other data processing, placing them at the top of the office pay structure.

More than 80 percent of all employees in new positions were selected from within the offices. (See table 3.) Those hired from the outside were primarily trainees. Most offices relied on standard tests of learning ability and numerical aptitude to screen applicants for these positions. All offices provided at least 4 or 5 weeks of formal classroom instruction for programmers and on-the-job training for operators of the equipment.

Women comprised about 10 percent of the employees in these new positions, compared with over 50 percent in the affected unit. Of the 915 employees in these new positions, only 52, or close to 6 percent, were employees whose previous work had been directly affected. About 10 percent were age 45 and over, compared with 23 percent in the group affected. Four out of five employees assigned to these positions were upgraded. The typical person selected for programming and planning—which accounted for the largest group of new positions—was a man between 25 and 34 years of age, with some college education, who had been engaged in accounting, procedure analysis, or related work.

TABLE 3. OCCUPATIONAL CLASSIFICATION OF EMPLOYEES IN ELECTRONIC DATA-PROCESSING POSITIONS, BY PRIOR OCCUPATIONAL CLASSIFICATION

Occupational classification prior to employment in electronic data processing	Percentage distribution of employees in electronic data-processing positions after computer installation study				
	Totals	Administrative and supervisory	Planning and programming	Console operation	Auxiliary equipment operation
All groups: Number	915	69	537	77	132
Percent	100.0	7.5	69.6	8.4	14.4
All groups	100.0	100.0	100.0	100.0	100.0
Accounting and professional	35.4	44.9	43.5	16.9	2.3
Administrative and supervisory	13.3	40.6	11.9	14.3	5.3
Tabulating and keyboard machine operation	13.1	2.9	4.4	31.2	80.0
Posting, checking, maintaining records, and filing	10.7	2.9	2.3	16.7	13.2
Computing and statistical	5.4	----------	6.0	2.6	6.8
Correspondence and secretarial work	2.0	----------	1.7	5.2	2.3
Nonclerical	1.2	1.4	1.1	1.3	1.5
New hires	18.9	7.2	22.1	11.7	13.6

NOTE: Because of rounding, sums of individual items may not equal totals.

Changeover Problems

While layoffs were averted among those whose jobs were eliminated, reassigning employees and staffing the new positions sometimes involved complex personnel problems. Finding suitable positions for long-service employees—especially supervisors—without disturbing promotion opportunities for other employees presented difficulties. Partly because of the newness of the field, there was some uncertainty about salary levels for the new jobs and the use and validity of test for selecting staff. In some unionized offices, the new position of programmers was included in the bargaining unit only after prolonged negotiations.

Implications for Older Employees. Older employees were affected by change in job status to a lesser extent than younger workers. They benefited from general policies assuring job security, the seniority provisions in union agreements, and similar protective provisions. However, they were not promoted to the newly created electronic positions to the same extent as younger workers, nor

were they hired as trainees. Their educational qualifications, employers' opinions, and preexisting hiring practices, as well as their own lack of confidence in their learning capacity, were among the factors retarding their advancement. An acute sense of responsibility and their maturity and experience, however, were important factors in the few cases where they were assigned to electronic data-processing positions.

Where employers have formed opinions about the inflexibility or lack of adaptability of older workers, the introduction of electronic data processing may intensify any preexisting reluctance to hire or promote them. The examples of the successful performance of older employees in these new positions in the offices studied reinforce the findings of research workers on the variability in learning capacity at all ages and underscore the importance of individual appraisal of employees in this field as in others.

—EDGAR WEINBERG
Division of Productivity and Technological Developments

. . . The Bureau of the Census has constructed four duplicates of an electronic machine called FOSDIC (Film Optical Sensing Device for Input to Computers) to be used in transcribing for tabulation the data collected in the 18th Decennial Census of the United States. This will make available five of these electronic machines in 1960. These machines will perform automatically the work which under former methods would require the employment of 2,000 clerical workers.

The pilot model for the Census Bureau's new FOSDIC equipment was developed at the Bureau of Standards by scientists on the Standards and Census staffs. . . . This electronic machine rapidly reads microfilms of census documents and transcribes the data to magnetic tape for direct input to an electronic computer.

—From FOSDIC to Assist in 1960 Census, U.S. Bureau of the Census, July 1959.

Occupational Earnings in Petroleum Refining, July 1959

STRAIGHT-TIME EARNINGS of production workers in the Nation's petroleum refineries averaged $2.50 or more an hour in all except 2 of the 42 occupational classifications studied by the Bureau of Labor Statistics in July 1959.[1] Laborers and janitors averaged $2.31 and $2.34 an hour, respectively. Nationwide averages for the skilled maintenance trades were grouped around $3.10 an hour. Stillmen averaged somewhat higher pay rates. Regionally,[2] earnings were generally highest in the East Coast and the Texas–Louisiana Gulf Coast regions and lowest in the Western Pennsylvania–West Virginia region. Establishment provisions for paid vacations, paid holidays, retirement pensions, and various types of health and insurance benefits were widespread in the industry.

Industry Characteristics

The Nation's 291 operating refineries, which process about two-fifths of the world production of crude oil, employed approximately 189,300 persons (including white-collar employees) on the date of this study.[3] Throughput capacity varied on January 1, 1959, from a few hundred barrels to almost 350,000 barrels of crude oil a day in individual refineries, and the total industry capacity was almost 10 million barrels daily.[4]

Availability of crude oil, access to water transportation, and proximity to a concentrated consumer market are among the factors that determine refinery locations. Four-fifths of the 101,000 production and related workers covered by the study were located in four regions: The Texas–Louisiana Gulf Coast accounted for a third of the workers; Midwest I, a fifth; the East Coast, a sixth; and the West Coast, an eighth. California accounted for about 95 percent of the workers in the West Coast region.

Three-fourths of the industry's work force were employed in refineries located in metropolitan areas. By region, the proportions of workers in metropolitan areas amounted to nine-tenths or more in the Midwest I and West Coast regions, more than four-fifths in the Texas–Louisiana Gulf Coast region, and three-fourths in the East Coast region. In contrast, only about a fifth of the workers in the Western Pennsylvania–West Virginia region were employed in metropolitan areas.

Nine-tenths of the production workers within the scope of the survey were employed in refineries whose major product was gasoline, while the remaining workers were employed in refineries primarily engaged in the production of other fuels, lubricating oils, asphalt, or other refinery products. Western Pennsylvania–West Virginia was the only region in which a substantial proportion of workers were employed in refineries primarily engaged in the manufacture of products other than gasoline. The manufacture of lubricating oils was comparatively important in this region, where the character of the industry differed considerably from that found in other regions.

Crude petroleum is refined by a number of complex refining processes. The pipe still method, introduced early in the present century, employs a continuous distilling process whereby crude oil is heated as it flows through a series of pipes in a furnace. The vapors and liquids which result are discharged into a fractionating tower where the various fractions or parts of crude oil are condensed and the liquids drawn off through pipes at different temperatures.

The batch-type thermal-cracking process was introduced commercially in 1913 and is still widely used. More valuable gasoline is produced by this method than by the distillation process. In addition, this gasoline has improved antiknock qualities over straight-run gasoline derived from the distillation process.

During the 1930's, catalytic cracking, employing heat and a catalyst, was introduced. This continuous process increased further the yield of gasoline and improved its antiknock qualities. Catalytic cracking is also used widely in refining.

Technological development in the refining of petroleum has been steady since the inception of the industry. Characteristically, petroleum re-

[1] See Wage Structure: Petroleum Refining, July 1959, BLS Report No. 158, for further details. The study covered petroleum refineries employing 100 or more workers. Central administrative offices and separate research laboratories were excluded.

[2] For definition of regions, see footnote 2, table 1.

[3] The 192 refineries within the scope of this study employed approximately 138,000 workers; 120 refineries were studied.

[4] See Petroleum Refineries, Including Cracking Plants in the United States, January 1, 1959 (U.S. Department of the Interior, Information Circular 7937).

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fining is a relatively large-scale manufacturing operation involving products which are almost exclusively processed. From the receipt of crude oil to the shipment of the finished product, the flow of production is virtually continuous in closely interrelated refining units. These factors have influenced the high degree of diversification of product and automation in the industry. On January 1, 1950, crude oil throughput capacity in 320 operating refineries was 6.2 million barrels per day, compared with 9.5 million barrels in 291 refineries on January 1, 1959.[5] As refineries become more automatic, their average size tends to increase, while their number tends to diminish. At the time of the earnings survey in July 1959, it was estimated that 28 refineries each employed 1,000 or more workers, 36 employed 500 to 999, and the remaining 128 employed fewer than 500 workers.

In July 1959, men comprised the overwhelming proportion of the work force and were nearly always paid on an hourly rate basis.

Slightly over nine-tenths of the production employees were in plants with labor-management contracts covering a majority of their workers. This or a higher proportion of workers were covered by contracts in six of the seven regions studied separately. Three-fourths of the workers in the Midwest II region were in establishments having contracts with labor organizations. Most contracts covering wages and related benefits were with the Oil, Chemical and Atomic Workers International Union (AFL–CIO). However, a substantial number of refineries had agreements with independent unions.

Numerically important processing jobs include stillmen and their assistants, gagers, and pumpmen. Large numbers of workers are also employed as laborers and loaders. Because of the mechanized nature of the industry, a substantial proportion of the work force is employed in the maintenance departments.

Fully 15,000 workers were employed in the seven skilled maintenance trades included in the survey, with pipefitters and machinists accounting for nearly half of this total. Additional thousands of maintenance workers were employed as auto mechanics, boilermakers, lead burners, masons, painters, riggers, tinsmiths, and in other jobs. Including the helpers (6,115), the total maintenance work force was estimated to account for substantially more than a fourth of the production and related worker employment in petroleum refineries. This proportion is undoubtedly among the highest in major manufacturing industries.

Maintenance Crafts Consolidation Plans

Labor market occupational wage surveys conducted by the Bureau in recent years have indicated that a few manufacturing establishments, mainly in petroleum refining, have maintenance crafts consolidation plans which eliminate rigid lines of craft duties and use a team approach, with workers performing a variety of maintenance tasks. Purely in terms of Government interests, this development may have implications for apprenticeship training programs, the design of occupational wage surveys, and the use of occupational employment estimates (developed in wage surveys) in manpower analysis. Information was thus sought in this survey on the incidence and major features of plans combining two or more crafts into a single payroll job classification.

Maintenance crafts consolidation plans were reported in 7 of 103 refineries providing information on this item.[6] Refineries with such plans, operated by four oil companies, were located mainly on the East Coast. All of the plans had been established comparatively recently, mostly since 1956. Specific details of the various plans reported ranged from provisions embracing all maintenance crafts (reported by three refineries) to those limited to specific crafts. For example, the plan of one refinery included only four classifications—bricklayers, carpenters, insulators, and painters; provisions of another plan included all craftsmen except instrument repairmen. Three plans placed all craftsmen covered by the plan in a single group. Two or more groups were provided by the other four plans, which most usually distinguished between equipment craftsmen (instrument repairmen, machinists, mechanics, electricians, and others) and metalworking craftsmen

[5] Ibid.

[6] In addition to the formally established plans, some arrangements were noted whereby workers were permitted to work at other skills when work was not available in their specialty. Thus, although a "team" effort was obtained, individual craft skills were maintained.

TABLE 1. NUMBER AND AVERAGE STRAIGHT-TIME HOURLY EARNINGS [1] OF MEN IN SELECTED PRODUCTION OCCUPATIONS IN PETROLEUM REFINING ESTABLISHMENTS, UNITED STATES AND SELECTED REGIONS,[2] JULY 1959

Department and occupation	United States [3]		East Coast		Western Pennsylvania-West Virginia		Midwest I		Midwest II		Texas-Louisiana Gulf Coast		Rocky Mountain		West Coast	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
MAINTENANCE																
Carpenters, maintenance	1,428	$3.10	176	$3.18	12	$2.25	370	$3.08	74	$2.87	569	$3.20	35	$3.00	163	$2.92
Electricians, maintenance	1,715	3.11	245	3.21	17	2.35	430	3.07	86	2.98	630	3.23	52	3.02	189	2.92
Helpers, trades, maintenance	6,115	2.60	826	2.64	62	2.10	964	2.69	429	2.51	2,246	2.62	205	2.67	1,084	2.54
Instrument repairmen	1,773	3.12	216	3.28	12	2.33	363	3.08	102	2.96	704	3.23	66	2.95	246	2.92
Machinists, maintenance	2,835	3.11	319	3.20	20	2.38	588	3.08	101	2.96	1,203	3.21	80	2.97	499	2.92
Mechanics, maintenance	1,077	3.06	315	3.19	18	2.30	254	3.04	143	2.92	182	3.14	29	2.99		
Pipefitters, maintenance	4,139	3.09	496	3.18	54	2.25	1,280	3.06	236	2.97	1,395	3.22	116	2.99	495	2.92
Welders, hand, maintenance	2,046	3.11	275	3.32	36	2.30	387	3.13	193	2.95	750	3.20	78	2.99	234	2.92
PROCESSING																
Assistant stillmen, cracking (catalytic)	2,048	3.08	214	3.19			614	3.13	155	2.87	704	3.13	84	2.90	139	3.04
Assistant stillmen, cracking (other than catalytic)	804	3.00	62	3.20	15	2.29	211	3.06	88	2.81	200	3.14	37	3.00	139	2.93
Assistant stillmen, straight-run	1,748	3.02	153	3.21	23	2.32	436	3.06	249	2.85	503	3.14			238	2.85
Assistant stillmen, combination units	647	3.04	101	3.12			129	3.12	40	2.96	198	3.09	28	2.92	122	2.90
Compounders	342	3.02	43	3.30	35	2.25	85	3.08	22	2.89	92	3.26			30	2.86
Filtermen	237	2.87	19	3.20	70	2.30			12	2.96	91	3.16				
Firemen, stills, cracking (catalytic)	708	2.89	99	2.93			181	2.93	36	2.73	242	2.93	42	2.85	95	2.79
Firemen, stills, cracking (other than catalytic)	394	2.87	20	2.94			123	2.92	40	2.74	101	2.93			91	2.77
Firemen, stills, straight-run	547	2.83	100	2.94			176	2.91	72	2.67	69	2.88			72	2.74
Firemen, stills, combination units	308	2.83					64	2.90			127	2.90			23	2.76
Gagers	1,372	2.87			17	2.15	104	2.94	98	2.73	881	2.96			328	2.77
Laborers	6,911	2.31	1,138	2.36	324	2.01	1,169	2.41	872	2.32	2,696	2.28	170	2.33	332	2.37
Loaders, tank cars or trucks	1,489	2.71	106	2.81	56	2.17	346	2.80	350	2.58	276	2.88	73	2.86	157	2.69
Package fillers, machine	361	2.57	60	2.55	18	2.15	36	2.84	33	2.64	153	2.59				
Packers, hand	290	2.53	40	2.72	40	2.07			34	2.50	50	2.64			83	2.55
Pressmen, paraffin	142	2.57			46	2.23										
Pumpmen	2,088	3.04	412	3.22	84	2.24	387	3.22	194	2.79	584	3.13	96	3.13	223	2.87
Pumpmen's helpers	949	2.91	217	2.92			255	2.98	97	2.72	268	3.00	19	3.02	39	2.67
Stillmen, cracking (catalytic)	1,041	3.29	103	3.38			251	3.38	121	3.10	330	3.36	95	3.18	84	3.18
Stillmen, cracking (other than catalytic)	660	3.19	43	3.54			160	3.30	112	2.96	181	3.32	24	3.24	58	3.23
Stillmen, straight-run	1,320	3.23	119	3.54	32	2.47	223	3.26	217	3.07	372	3.38	60	3.34	193	3.08
Stillmen, combination units	683	3.23	71	3.44			88	3.32	28	3.17	301	3.23	37	3.16		
Treaters, light oils	680	3.08	63	3.33	26	2.21	156	3.15	62	2.90	173	3.20	40	3.10	127	2.99
Treaters, heavy oils	171	3.20					10	3.24			107	3.22			22	3.11
Treaters' helpers, light oils	482	2.89	75	2.93			50	2.99	13	2.83	138	3.02			172	2.80
Treaters' helpers, heavy oils	198	2.91									119	2.97				
INSPECTION AND TESTING																
Routine testers, laboratory	3,078	2.85	509	3.00	100	2.20	504	2.82	334	2.69	832	2.98	147	2.75	284	2.76
RECORDING AND CONTROL																
Stocks clerks	672	2.79	123	2.81	9	2.13	158	2.85	50	2.86	220	2.87			69	2.66
MATERIAL MOVEMENT																
Truckdrivers [4]	1,505	2.68	260	2.72	42	2.08	398	2.78	108	2.56	427	2.65	52	2.69	160	2.73
Truckdrivers, light (under 1½ tons)	273	2.66					46	2.77	18	2.51	124	2.66	15	2.46	36	2.72
Truckdrivers, medium (1½ to and including 4 tons)	462	2.69					130	2.80	62	2.52					105	2.78
Truckers, power (forklift)	315	2.60	72	2.65			17	2.69	46	2.55	91	2.62	6	2.67	58	2.56
CUSTODIAL																
Guards	774	2.62	194	2.62			203	2.67	42	2.50	263	2.68	17	2.44	23	2.50
Janitors	1,084	2.34	181	2.44	22	1.87	200	2.44	74	2.29	457	2.31	22	2.28	108	2.38
Watchmen	400	2.53	78	2.54	25	2.01	83	2.49			179	2.61				

[1] Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

[2] The regions used in this study include: *East Coast*—Connecticut, Delaware, District of Columbia, Florida, Georgia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Rhode Island, South Carolina, Virginia, Vermont, and the following counties in Pennsylvania: Bradford, Columbia, Dauphin, Montour, Northumberland, Sullivan, York, and all counties east thereof; *Western Pennsylvania-West Virginia*—West Virginia and those counties in Pennsylvania not included in the East Coast region; *Midwest I*—Illinois, Indiana, Kentucky, Michigan, Ohio, and Tennessee; *Midwest II*—Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota, and Wisconsin; *Texas-Louisiana Gulf Coast*—the following counties in Texas: Aransas, Brazoria, Calhoun, Cameron, Chambers, Fort Bend, Galveston, Harris, Hardin, Jackson, Jasper, Jefferson, Kenedy, Kleberg, Liberty, Matagorda, Montgomery, Newton, Nueces, Orange, Polk, Refugio, Tyler, San Jacinto, San Patricio, Victoria, Waller, Wharton, and Willacy; the following parishes in Louisiana: Avoyelles, East Feliciana, Pointe Coupee, Tangipahoa, Vernon, Rapides, Washington, and West Feliciana, and all parishes south thereof; the following counties in Mississippi: George, Hancock, Harrison, Jackson, Pearl River, and Stone; and the following counties in Alabama: Baldwin and Mobile; *Rocky Mountain*—Colorado, Idaho, Montana, Utah, and Wyoming; and *West Coast*—Arizona, California, Nevada, Oregon, and Washington.

[3] Includes data for the Texas Inland-North Louisiana-Arkansas region in addition to those shown separately.

[4] Includes all drivers regardless of size and type of truck operated.

NOTE: Dashes indicate no data reported or data that do not meet publication criteria.

(blacksmiths, boilermakers, pipefitters, welders, and others). Building trades craftsmen in some instances were also placed in a separate group.

In some instances, new workers were brought under the plan through the helper classification and were placed in training until they qualified for the craftsman level. Other plans accepted only workers with journeyman skill in at least one craft and then provided training in additional crafts of the group.

Most of the maintenance crafts consolidation plans reported had formally established single rate structures for workers covered by the plans; in a few instances, however, rate ranges were applicable.

At the time of the Bureau's study, about 1,330 workers were covered by the seven craft-consolidation plans reported. These workers, performing the skills of several crafts, were not classifiable under the specific maintenance occupations for which data are reported in table 1. Based on data obtained in the study, it is estimated that between 5 and 10 percent of all maintenance workers in the industry were employed under craft-consolidation plans in July 1959.

Occupational Earnings

Straight-time average hourly earnings, excluding premium pay for overtime and for work on weekends, holidays, and late shifts, were reported in the Bureau's study for men workers in 42 selected occupations accounting for somewhat more than half of the industry's production-worker employment (table 1). Reflecting the comparatively high level of wages maintained by the industry, nationwide averages of $2.50 or more an hour were recorded for all occupations except laborers and janitors, who averaged $2.31 and $2.34 an hour, respectively.

Stillmen on various types of equipment averaged from $3.19 to $3.29 an hour on a nationwide basis and were among the highest paid workers studied. Assistant stillmen earned approximately 20 cents an hour less than stillmen, averaging from $3 to $3.08 on the different types of equipment. Nationwide averages for firemen assigned to the various types of stills ranged from $2.83 to $2.89 an hour—approximately 40 cents an hour less than stillmen and 20 cents an hour less than assistant stillmen.

Average hourly earnings for each of the seven journeyman maintenance jobs studied were grouped from $3.06 to $3.12. The 6,115 maintenance trades helpers averaged $2.60 an hour.

Regionally, average wage rates for most of the jobs studied were highest either in the East Coast or the Texas–Louisiana Gulf Coast region, particularly for the skilled maintenance trades. However, average pay in the Midwest I region frequently equaled or exceeded those in the two named regions. Job averages in the Western Pennsylvania–West Virginia region, accounting for less than 3 percent of the industry's employment, were generally about 25 percent below the national averages. West Coast and Midwest II pay levels were also below nationwide averages except in a few jobs, mainly unskilled.

Within occupational classifications, earnings of individual workers were concentrated within comparatively narrow ranges, even when considered on a nationwide basis. For example, nearly nine-tenths of the 6,911 laborers had earnings within a 30-cent range ($2.20–$2.50); nine-tenths of the 6,115 maintenance trades helpers earned between $2.50 and $2.80 an hour; and four-fifths of the 4,139 pipefitters earned between $2.90 and $3.20. As shown in the following tabulation for laborers, the concentration of individual earnings is even more apparent when the data are analyzed for the selected regions.

	Percent of laborers having hourly earnings of—						
	Less than $2.00	*$2.00 and under $2.10*	*$2.10 and under $2.20*	*$2.20 and under $2.30*	*$2.30 and under $2.40*	*$2.40 and under $2.50*	*$2.50 and over*
United States [1]	3.1	4.1	1.4	33.8	37.3	17.6	2.6
East Coast	-----	-----	-----	25.7	58.3	8.3	7.6
Western Pennsylvania–West Virginia	34.6	65.4	-----	-----	-----	-----	-----
Midwest I	.2	1.4	2.2	10.9	10.7	71.7	3.0
Midwest II	-----	1.4	5.8	35.6	39.9	17.3	-----
Texas–Louisiana Gulf Coast	2.1	.1	-----	58.4	39.2	.3	-----
Rocky Mountain	11.8	3.5	.6	18.8	20.0	22.3	22.9
West Coast	-----	-----	-----	.3	75.3	24.4	-----

[1] Includes data for the Texas Inland–North Louisiana–Arkansas region in addition to those shown separately. For definition of regions, see footnote 2, table 1.

Establishment Practices

Data were also obtained on work schedules and selected supplementary benefits, including paid holidays, paid vacations, retirement plans, life, sickness, and accident insurance, hospitalization and surgical benefits, and thrift or savings plans.

TABLE 2. PERCENT OF PRODUCTION WORKERS EMPLOYED IN PETROLEUM REFINING ESTABLISHMENTS WITH FORMAL PROVISIONS FOR SELECTED SUPPLEMENTARY WAGE BENEFITS,[1] UNITED STATES AND SELECTED REGIONS,[2] JULY 1959

Selected benefits	United States [3]	East Coast	Western Pennsylvania–West Virginia	Midwest I	Midwest II	Texas–Louisiana Gulf Coast	Rocky Mountain	West Coast
Paid vacations: [4]								
After 1 year of service	100	100	100	100	100	100	100	100
1 week	8		100	7	35	2	3	
2 weeks	92	100		93	65	98	97	100
After 5 years of service	100	100	100	100	100	100	100	100
2 weeks	100	100	100	100	100	100	100	100
After 10 years of service	100	100	100	100	100	100	100	100
2 weeks	5		88	2	19			
3 weeks	95	100	12	98	81	100	100	100
After 15 years of service	100	100	100	100	100	100	100	100
3 weeks	98	100	100	100	100	98	100	100
4 weeks	1					2		
After 20 years of service [5]	100	100	100	100	100	100	100	100
3 weeks	5		88	2	19		2	
4 weeks	94	100	12	98	81	100	98	100
Paid holidays [6]	100	100	100	100	100	100	100	100
Less than 7 holidays	1			2				
7 holidays	4	1	88	6	7		3	
8 holidays	87	58	12	87	93	100	97	100
9 holidays	2	9		5				
10 holidays	4	23						
12 holidays	2	9						
Health, insurance, and pension plans: [7]								
Life insurance	97	100	100	100	100	97	98	85
Accidental death and dismemberment insurance	36	30	80	35	46	18	40	71
Sickness and accident insurance or sick leave or both [8]	99	100	91	100	100	98	100	100
Sickness and accident insurance	38	48	57	30	61	40	42	12
Sick leave (full pay, no waiting period)	58	57		59	80	48	71	80
Sick leave (partial pay or waiting period)	34	36	82	28	19	41	18	20
Hospitalization insurance	98	100	100	100	95	100	98	90
Surgical insurance	98	100	100	100	95	100	98	90
Medical insurance	73	75	55	84	91	62	78	85
Catastrophe insurance	34		5	15	34	45	29	76
Retirement pension	98	100	100	99	99	97	98	100

[1] If formal provisions for supplementary benefits in an establishment were applicable to half or more of the workers, the benefits were considered applicable to all workers. Because of length-of-service and other eligibility requirements, the proportion of workers currently receiving the benefits may be smaller than estimated.

[2] For definition of regions, see footnote 2, table 1.

[3] Includes data for the Texas Inland–North Louisiana–Arkansas region in addition to those shown separately.

[4] The periods of service shown were arbitrarily chosen and do not necessarily reflect the individual provisions for progression. For example, the changes indicated at 5 years may include changes occurring between 1 and 5 years.

[5] Vacation provisions were virtually the same after longer periods of service.

[6] Tabulations were limited to full-day holidays; additional half-day holidays were also provided in some establishments. Because of rounding, sums of individual items may not equal 100.

[7] Includes only those plans for which at least a part of the cost is borne by the employer, and excludes legally required plans such as workmen's compensation and social security.

[8] Unduplicated total of workers receiving sick leave or sickness and accident insurance shown separately.

Scheduled Weekly Hours and Shift Practices. Work schedules of 40 hours a week were in effect in establishments employing 97 percent of the production workers in July 1959. In the Midwest I region, 5 percent of the workers were on a 36-hour schedule and 9 percent on a 42-hour schedule.

Payment of premium rates for second- and third-shift work was an established policy in refineries accounting for 98 percent of the workers in the industry. Most common provisions in all regions were 8 cents and 16 cents an hour for second- and third-shift workers, respectively. At the time of the study, approximately 15 percent of the workers were employed on each of the late shifts.

Paid Holidays. Paid holidays were provided for all production workers (table 2). Eight days a year were provided a large majority of the workers in all regions except Western Pennsylvania–West Virginia, where the typical provi 'on was 7 days a year. A third of the workers in the East Coast region received 10 or more paid holidays a year.

Paid Vacations. Paid vacations were provided for all production workers with qualifying service (table 2). More than nine-tenths of the workers were employed in establishments providing a 2-week vacation with regular pay after 1 year of service. Ninety-five percent of the workers with 10 years of service were eligible for 3 weeks of paid vacation; and a similar proportion was employed in establishments providing 4 weeks after 20 years of service. Regionally, vacation benefits were somewhat less liberal in the Western Pennsylvania–West Virginia and Midwest II regions. All of the workers in the former region and 35 percent of the workers in the latter region were

employed in refineries providing a week's vacation after a year of service. These workers in the Midwest II region received 2 weeks' vacation after 2 years of service, but workers in the Western Pennsylvania–West Virginia region were not eligible for 2 weeks' vacation until after 5 years of service. Workers in the latter region typically received 3 weeks' vacation after 15 years of service; vacations of 4 weeks were not common.

Health, Insurance, and Pension Plans. Life, hospitalization, and surgical insurance, for which employers paid at least part of the cost, were available to almost all of the production workers (table 2). Sickness and accident insurance or sick leave was also provided for nearly all production workers. Three-fourths of the workers were employed in refineries providing medical insurance. Catastrophe insurance was provided three-fourths of the workers in the West Coast region and was reported in several other regions.

Retirement pension benefits (other than those available under Federal Old Age, Survivors, and Disability Insurance) were provided by establishments employing 98 percent of the workers.

Thrift or Savings Plans. Thrift or savings plans, to which the employer made monetary contributions beyond administrative costs, were provided by establishments employing approximately 86 percent of the industry's production workers. Such plans were available to all production workers in the East Coast region and 95 percent of the workers in the Texas–Louisiana Gulf Coast region.

Seventy-seven of the 120 refineries studied had thrift or savings plans for eligible workers who wished to subscribe. The proportion of eligible workers subscribing to the available plan exceeded 75 percent in all but a few of these refineries; in 37 of the refineries, the proportion was 95 percent or more. Thrift or savings plans were reported by all of the 13 refineries studied in the East Coast region; by 18 of 20 in the Texas–Louisiana Gulf Coast region; by 12 of 14 in the West Coast region; and by half or more in the other regions, except in the Western Pennsylvania–West Virginia region where none of the plants studied reported such plans.

—Harry F. Bonfils
Division of Wages and Industrial Relations

World production of crude petroleum increased 2.6 percent in 1958, reaching 6.6 billion barrels. During the year, output of crude by the U.S.S.R. and Soviet bloc countries accounted for 14.1 percent of the total, as against 12.9 percent in 1957. North America continued, as in past years, to supply the largest percentage of world output—41.5 percent of the total. The next largest supplier, the Middle East, contributed 23.5 percent. South America accounted for 16.4 percent. Production by these three free world areas comprised 81.4 percent of the world total, compared with 82.9 percent in 1957. Although African production of crude was insignificant in 1958, the relative gain in output, compared with 1957, far exceeded relative gains in other regions.

—From Minerals Yearbook, 1958, Vol. II, U.S. Bureau of Mines, p. 468.

Union Wage Scales in Local City Trucking, 1959

HOURLY WAGE SCALES of unionized local motortruck drivers and helpers in cities of 100,000 or more population advanced an average of 11.5 cents, or 4.7 percent, in the 12 months ending July 1, 1959.[1] Increased rates were reported for 94 percent of the workers included in the Bureau of Labor Statistics 24th annual survey of union scales in local city trucking. Raises varied from 10 to 15 cents an hour for nearly half of the workers. Hourly advances of 5 to 7½ cents, 15 to 17½ cents, and 17½ cents and over affected in each case approximately an eighth of the workers.[2]

On July 1, 1959, union hourly scales averaged $2.53 for motortruck drivers and their helpers. Labor-management agreements stipulated rates of $2.25 to $2.50 for nearly three-tenths of the workers; of $2.50 to $2.75 for two-fifths; and of $2.75 or more for almost another fifth.[3]

Straight-time work schedules continued their movement toward a shorter workweek and averaged 40.2 hours on July 1, 1959, compared with 40.3 hours the previous year. The most common work schedule, 40 hours, was in effect for seven-eighths of the drivers and helpers.

Health and insurance plans were provided in labor-management agreements covering nine-tenths of the workers surveyed. Pension plan provisions were applicable to approximately three-fourths of the drivers and helpers.

Wage Scale Changes and Trend

Negotiated pay scales of motortruck drivers and helpers increased an average of 4.7 percent between July 1, 1958, and July 1, 1959. This increase, although smaller than the gains registered in the two preceding 12-month periods, closely approximated the 4.9-percent advance recorded in the year ending July 1, 1956, and raised the Bureau's index (1947–49=100) of union hourly wage rates for these workers to 180.6 (table 1).

During the survey year, average hourly scales rose 4.8 percent for drivers and 4.5 percent for helpers. On a cents-per-hour basis, the increases in average scales were 12 and 10 cents, respectively.

Wage scale changes for local trucking workers were achieved through negotiations on contract expirations or reopenings. The tendency to negotiate labor-management contracts of more than a year's duration continued to prevail. Of the contracts in effect on July 1, 1959, many were for 2 or 3 years, and some for longer periods. Multiyear contracts usually provide for wage reopenings or for interim deferred increases. Only those scale changes which actually became effective between July 1, 1958, and July 1, 1959, were included in the survey. Some of the adjustments reflected in the survey were negotiated prior to July 1, 1958. Excluded from the survey were negotiated increases effective after July 1, 1959. Thus, the scale changes presented in this report do not reflect the total wage adjustments negotiated in individual contracts during the year.

Scale adjustments between July 1, 1958, and July 1, 1959, advanced the rates for 94 percent of the local motortruck drivers and for 90 percent of their helpers. Increases varied from 10 to 15 cents an hour for nearly half of the drivers and for two-fifths of the helpers. Raises of less than 10 cents

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[1] Union scales are defined as the minimum wage scales or maximum schedules of hours agreed upon through collective bargaining between trade unions and employers. Rates in excess of the negotiated minimum, which may be paid for special qualifications or other reasons, are not included.

The information presented in this report was based on union scales in effect on July 1, 1959, and covered approximately 275,000 drivers and 38,000 helpers in 52 cities with populations of 100,000 or more. Local city drivers paid on a mileage or commission basis and over-the-road drivers operating between cities or various parts of the United States were excluded from the study. Data were obtained from local union officials primarily by mail questionnaire; in some cities, data were obtained from regional or local officials of the union by Bureau representatives.

Forthcoming BLS Bull. 1270 contains detailed summary information. Mimeographed listings of union scales are available for each city included in the survey.

The current survey was designed to reflect union wage scales of local motortruck drivers and helpers in all cities of 100,000 or more population. All cities with 500,000 or more population were included, as were most cities in the population group of 250,000 to 500,000. The cities in the 100,000 to 250,000 group selected for study were distributed widely throughout the United States. The data for some of the cities included in the study in the two smaller size groups were weighted in order to compensate for cities which were not surveyed. In order to provide appropriate representation in the combination of data, each geographic region and population group was considered separately when city weights were assigned.

[2] For ease of reading in this and subsequent discussions of tabulations, the limits of class intervals are designated as 10 to 15 cents, 3 to 5 percent, etc., instead of using the more precise terminology, 10 and under 15 cents, 3 and under 5 percent, etc.

[3] The averages computed on the basis of hourly scales are designed to show current rate levels in effect on July 1, 1959. Individual scales are weighted by the number of union members having each rate. These averages are not designed for precise year-to-year comparisons because of fluctuations in membership and in classifications studied. Average cents-per-hour and percentage changes from July 1, 1958, to July 1, 1959, are based on comparable quotations for the various occupational classifications in both periods, weighted by the membership reported for the current survey. The index series, designed for trend purposes, is similarly constructed.

affected a fifth of the drivers and a third of the helpers, and those of 15 to 17½ cents applied to a seventh and a sixteenth of the drivers and helpers, respectively. Rates advanced at least 17½ cents for another eighth of the truckdrivers and almost a tenth of the helpers. The increase most frequently reported was 10 cents; a third of the drivers and almost the same proportion of helpers had their scale advanced by this amount. In percentage terms, the advances represented gains of 2 to 4 percent for a seventh of the drivers and a fifth of the helpers; of 4 to 5 percent for three-eighths of the truckdrivers and almost three-tenths of their helpers; and of 5 to 7 percent for almost a fourth of both drivers and helpers. The advance was 7 percent or more for a sixth of the workers in both classifications.

Regionally, advances in average scales varied from 10 to 13 cents an hour for local city motortruck drivers in all regions except the Pacific. In this region, average scales rose 17 cents an hour. The increases represented gains of 4 to 5 percent in all regions except the Southeast and Pacific where the rates of gain were 5.5 and 6.5 percent, respectively. For helpers, average hourly scales increased 15 cents in the Pacific region and from 6 to 11 cents in the others. In percentage terms, the advance was 6.4 percent in the Pacific region, and in the other regions, varied from 3.9 in the Great Lakes to 5.1 in the Southeast.

Pay scales were advanced for some truckdrivers in each of the 52 cities studied. The increases in the average hourly scales varied widely among the individual cities, ranging from 7½ cents in Oklahoma City to 37 cents in Charlotte. Average scale advances of 8 to 12 cents were recorded in 35 cities, and of 12 to 16 cents in 10 others. Among the 47 cities for which data were available for helpers, average hourly scale advances varied from 2 cents in Atlanta to 20 cents in Salt Lake City. Helpers had their average rate advanced by 7 to 10 cents in 18 cities, by 4 to 7 cents in 11 cities, and by 10 to 13 cents in 11 others. In the remaining five cities, average scales for helpers rose at least 13 cents an hour.

On a percentage basis, the advance ranged from 3 to 5 percent for motortruck drivers in two of every three cities and for helpers in one of every two cities.

The increases in some of the cities were partly attributable to provisions of contracts negotiated on a broad regional basis for numerically important groups of trucking workers. These contracts provide for increases in rates and reductions in weekly hours at stated intervals over a period of several years, until previously determined rates and work schedules are attained.

Union scales in effect on July 1, 1959, for drivers and helpers engaged in local motortrucking averaged $2.53 an hour—$2.56 for drivers and $2.27 for their helpers. Labor-management agreements specified hourly wage scales of $2.25 to $2.50 for nearly three-tenths of the drivers, of $2.50 to $2.75 for two-fifths, and of $2.75 or more for another fifth. Contract scales of $2 to $2.25 an hour affected three-eighths of the helpers and of $2.25 to $2.50 for a third. Hourly scales of $2.50 to $2.75 were applicable to an eighth of the helpers as were rates of less than $2 an hour.

TABLE 1. INDEXES OF UNION HOURLY WAGE RATES AND WEEKLY HOURS FOR MOTORTRUCK DRIVERS AND HELPERS, 1936–59

[1947–49=100]

Date	Drivers and helpers		Drivers		Helpers	
	Wage rates	Hours	Wage rates	Hours	Wage rates	Hours
1936: May 15	50.6	109.0	[1]	[1]	[1]	[1]
1937: May 15	53.9	108.1	54.3	108.4	51.3	106.8
1938: June 1	55.9	108.1	56.3	108.4	53.1	106.8
1939: June 1	57.1	107.1	57.5	107.5	54.5	105.5
1940: June 1	58.3	106.1	58.7	106.6	55.6	104.2
1941: June 1	60.6	105.5	60.9	105.9	58.3	103.5
1942: July 1	64.9	105.8	65.0	106.0	63.4	105.5
1943: July 1	68.4	105.6	68.5	105.8	67.0	105.3
1944: July 1	70.0	105.5	70.1	105.7	69.1	105.3
1945: July 1	71.5	105.3	71.6	105.4	70.7	105.2
1946: July 1	79.6	103.1	79.6	103.3	79.3	102.9
1947: July 1	91.9	100.7	91.9	100.6	90.9	101.1
1948: July 1	100.0	99.8	100.0	99.9	100.7	99.7
1949: July 1	108.1	99.5	108.1	99.5	108.4	99.2
1950: July 1	111.9	98.8	111.7	98.9	113.2	98.5
1951: July 1	118.2	98.7	117.9	98.8	119.6	98.2
1952: July 1	124.7	98.3	124.1	98.4	127.7	97.7
1953: July 1	134.5	96.4	133.8	96.5	137.9	95.6
1954: July 1	140.2	95.6	139.3	95.8	145.0	94.2
1955: July 1	148.2	95.1	147.2	95.3	153.4	93.6
1956: July 1	155.5	94.3	154.4	94.5	161.8	92.8
1957: July 1	163.9	93.9	162.6	94.2	171.2	92.4
1958: July 1	172.4	93.5	171.0	93.8	180.6	91.9
1959: July 1	180.6	92.5	179.2	92.6	188.7	91.7

[1] Information not computed separately in 1936.

City and Regional Scale Levels

Although broad regional agreements were negotiated for some types of local trucking, negotiations for most of the labor-management contracts were conducted on a locality basis. Wage scales, therefore, varied widely among the individual cities. Wage scales are also affected by size and type of truck and the kind of commodities hauled

within individual cities. Because of varying classifications and terminology used in individual cities, it is impossible to present separate averages by type of commodity or industry, or type and size of truck. Hence, the city and regional averages shown in this report relate to all local drivers and/or helpers, combined.

Among the individual cities studied, average hourly scales for motortruck drivers varied from $2.02 in New Orleans to $2.82 in San Francisco–Oakland. Rates averaged $2.50 or more in 21 other cities, and from $2.25 to $2.50 in 26 cities. Average hourly scales for helpers were highest ($2.58) in San Francisco–Oakland and lowest ($1.20) in Knoxville. Average hourly rates of $2.50 or more prevailed in 5 of the 47 cities reporting helpers, and ranged from $2.25 to $2.50 in 20 cities, from $2 to $2.25 in 12 cities, from $1.75 to $2 in 5 cities, and less than $1.75 in the remaining 5 cities.

Grouping the cities by population size shows that average scales varied by size of city and that the variation was greater for drivers than for helpers. The average scale for drivers was highest ($2.63) in cities of 1,000,000 or more population and lowest ($2.45) in the population group, 100,000 to 250,000, the smallest size studied. For the two intermediate groups (250,000–500,000 and 500,000–1,000,000), the averages were approximately the same—$2.54 and $2.56, respectively. For helpers, scales averaged $2.32 in the group of cities of 250,000–500,000 population, $2.28 in the 500,000 to 1,000,000 group, and $2.26 and $2.23, respectively, in the largest and smallest city size groups.

Average hourly rates for the individual cities within each population group varied widely. The spread between the lowest and highest city averages for drivers was smallest (23 cents) in the largest city size group and greatest (80 cents) in the 500,000 to 1,000,000 population group. For helpers, the difference varied from 25 cents in the largest size group to $1.37 in the smallest size group.

An overlapping of average scales existed among cities in the different population size groups for both classifications of workers. For example, the $2.72 average scale for drivers in Peoria in the 100,000–250,000 population group, the smallest size studied, exceeded the average for all but one city in the larger size groups.

TABLE 2. AVERAGE UNION HOURLY WAGE RATES OF MOTORTRUCK DRIVERS AND HELPERS, BY REGION,[1] JULY 1, 1959

Region	Average rate per hour		
	Drivers and helpers	Drivers	Helpers
United States	$2.53	$2.56	$2.27
New England	$2.36	$2.41	$2.19
Middle Atlantic	2.52	2.57	2.24
Border States	2.28	2.32	2.11
Southeast	2.42	2.43	1.25
Great Lakes	2.62	2.64	2.39
Middle West	2.50	2.52	2.40
Southwest	2.28	2.29	2.13
Mountain	2.23	2.27	1.91
Pacific	2.70	2.71	2.48

[1] The regions used in this study include: *New England*—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; *Middle Atlantic*—New Jersey, New York, and Pennsylvania; *Border States*—Delaware, District of Columbia, Kentucky, Maryland, Virginia, and West Virginia; *Southeast*—Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee; *Great Lakes*—Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; *Middle West*—Iowa, Kansas, Missouri, Nebraska, North Dakota, and South Dakota; *Southwest*—Arkansas, Louisiana, Oklahoma, and Texas; *Mountain*—Arizona, Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming; and *Pacific*—California, Nevada, Oregon, and Washington.

Regionally, average union hourly wage scales for local motortruck drivers varied from $2.27 an hour in the Mountain region to $2.71 in the Pacific region. The $2.56 national average for drivers was also exceeded in the Great Lakes and Middle Atlantic regions. Scales for helpers averaged lowest ($1.25) in the Southeast and highest ($2.48) in the Pacific region. In the seven remaining regions, scales averaged in excess of $2.10 an hour in all but one region (table 2).

Standard Workweek

Straight-time workweeks were specified in labor-management agreements covering more than 98 percent of the local unionized motortruck drivers and their helpers in cities of 100,000 or more population. On July 1, 1959, such straight-time workweeks averaged 40.2 hours, compared with 40.3 hours for the previous July. The movement toward a shorter workweek was reflected in the Bureau's index of weekly hours for drivers and their helpers, which as of July 1, 1959, was 7.5 percent below the 1947–49 level.

Weekly straight-time work schedules of 40 hours were in effect for seven-eighths of the local motortrucking workers. Agreements specifying schedules of more than 40 hours per week were applicable to a twelfth of the local motortruck drivers and their helpers.

Health, Insurance, and Pension Plans

Labor-management contracts providing for health and insurance programs were applicable to nine-tenths of the drivers and helpers engaged in local trucking; pension plan provisions were contained in agreements covering approximately three-fourths of the workers.[4] Plans financed entirely by the employers affected more than 95 percent of the workers covered by such provisions.

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[4] The prevalence of negotiated health, insurance, and pension programs for local motortruck drivers and helpers was first studied by the Bureau in July 1954. Information for these plans was restricted to those financed entirely by the employer or jointly by the workers and employers. Plans financed by workers through union dues or assessments were excluded from the study. No attempt was made to secure information on the kind and extent of benefits provided or on expenditures for such benefits.

Preliminary Estimates of Work Injuries in 1959

DISABLING WORK INJURIES in the United States increased to 1,970,000 in 1959, according to preliminary estimates.[1] This total, the highest since 1953, was 8 percent above the 1958 figure.

Though increased employment contributed to this rise, injuries increased more than did employment. The injury rate was up from 29.4 per 1,000 workers in 1958 to 31.2 in 1959. The 1959 rate was also above that of 1957 but was about the same as in 1954 and 1956, and was below the rates of most other earlier years. It was 32 percent below the wartime peak of 45.7 per 1,000 workers in 1943.

Fatal work injuries did not increase as much as did work injuries in general. The 1959 total of 13,800 work deaths was 4 percent above the 1958 figure but was lower than any other year on record. The death rate of 22 per 100,000 workers matched the record low established in 1958.

Thus, the 1959 work-injury record, though not as good as 1958, compared favorably with that for most recent years. An upswing in injury rates was to be expected with increased industrial activity, since the injury rate has commonly risen when there was an influx of new workers and experienced workers were shifted to new processes and activities.

In addition to the work deaths, approximately 84,200 injuries resulted in some degree of permanent physical impairment, ranging from the amputation or partial loss of use of a finger or toe to complete inability to engage in any future gainful employment. The remaining 1,872,000 injuries each disabled a worker for 1 full day or more after the day of injury, but resulted in no permanent ill effects.

Altogether, these injuries resulted in approximately 41 million man-days of disability during 1959. This estimate includes the full days of disability for temporary cases (averaging 18 days per case) but only the current losses resulting from the deaths and permanent impairments. When the future effects of the deaths and permanent impairments are evaluated [2] and added to the immediate loss of time, the total attributable to the 1959 injuries will amount to approximately 168 million man-days of disability [3]—equivalent to 540,000 man-years.

The principal increase in injuries occurred in manufacturing, up 18 percent, from 340,000 in 1958 to 400,000 in 1959. Increased employment and a longer workweek resulted in 7 percent

[1] These estimates of work injuries were compiled by the U.S. Department of Labor's Bureau of Labor Statistics in collaboration with the National Safety Council. They are based upon all available data from various Federal and State agencies and upon sample surveys in some industries. Data on the exact distribution of cases by type of disability are not available for some industries; in these, approximations of the breakdowns of cases have been made for inclusion in the grand totals but have not been shown in the accompanying table for the individual industries. See footnotes to table for specific sources and limitations.

A disabling work injury is any injury occurring in the course of, and arising out of, employment which (a) results in death or in permanent physical impairment or (b) makes the injured worker unable to perform the duties of any regularly established job, which is open and available to him, throughout the hours corresponding to his regular shift on any one or more days after the day of injury (including Sundays, days off, or plant shutdowns). The term "injury" includes occupational disease.

[2] Each death and permanent impairment is assigned a standard time charge, based on the average work-life expectancy or lost working efficiency, as established in the scale presented in the American Standard Method of Recording and Measuring Work Injury Experience, approved by the American Standard Association in 1954.

[3] Time losses for temporary disabilities are figured in terms of calendar days; thus, this total does not represent total workdays lost.

ESTIMATED NUMBER OF DISABLING WORK INJURIES, BY INDUSTRY DIVISION, 1955–59

Industry division and type of disability	All workers [1]					Employees only				
	1959 [2]	1958 [3]	1957	1956	1955	1959 [2]	1958 [3]	1957	1956	1955
Total disabling injuries	1,970,000	1,820,000	1,890,000	1,950,000	1,930,000	1,510,000	1,380,000	1,450,000	1,510,000	1,480,000
Agriculture [4]	300,000	300,000	300,000	300,000	310,000	60,000	60,000	58,000	58,000	58,000
Mining [5]	45,000	46,000	52,000	55,000	56,000	42,000	43,000	49,000	52,000	53,000
Contract construction [6]	217,000	195,000	200,000	218,000	220,000	167,000	150,000	155,000	173,000	175,000
Manufacturing [7]	400,000	340,000	392,000	420,000	418,000	390,000	330,000	382,000	410,000	408,000
Transportation [8]	177,000	164,000	175,000	175,000	166,000	157,000	144,000	155,000	155,000	146,000
Public utilities [9]	15,000	14,000	14,000	16,000	16,000	15,000	14,000	14,000	16,000	16,000
Trade [6]	366,000	340,000	340,000	355,000	350,000	276,000	260,000	260,000	275,000	270,000
Finance, service, government, and miscellaneous industries	450,000	421,000	417,000	411,000	394,000	403,000	379,000	377,000	371,000	354,000
Deaths [9]	13,800	13,300	14,200	14,300	14,200	10,100	9,700	10,400	10,400	10,200
Agriculture [4]	3,400	3,300	3,500	3,600	3,700	1,000	1,000	1,000	1,000	1,000
Mining [5]	700	700	900	800	800	600	600	800	700	700
Contract construction [6]	2,500	2,400	2,500	2,600	2,500	2,000	1,900	2,000	2,100	2,000
Manufacturing [7]	1,900	1,800	2,000	2,000	2,000	1,800	1,700	1,900	1,900	1,900
Transportation [8]	1,300	1,200	1,300	1,300	1,300	1,200	1,100	1,200	1,200	1,200
Public utilities [9]	200	200	200	200	200	200	200	200	200	200
Trade [6]	1,200	1,200	1,300	1,400	1,400	900	900	1,000	1,100	1,100
Finance, service, government, and miscellaneous industries	2,600	2,500	2,500	2,400	2,300	2,400	2,300	2,300	2,200	2,100
Permanent impairments [10] [11]	84,200	76,700	80,800	84,700	81,800	66,900	60,300	64,600	68,600	64,800
Contract construction [6]	6,300	5,300	5,600	6,100	6,200	4,700	3,800	4,100	4,600	4,700
Manufacturing [7]	25,500	21,600	22,800	24,500	23,300	25,000	21,100	22,300	24,000	22,800
Trade [6]	8,600	7,800	7,800	7,800	7,200	6,400	6,000	6,000	6,000	5,400
Temporary-total disabilities [11]	1,872,000	1,730,000	1,795,000	1,851,000	1,834,000	1,433,000	1,310,000	1,378,000	1,431,000	1,405,000
Contract construction [6]	208,200	187,300	191,900	209,300	211,300	160,300	144,300	148,900	166,300	168,300
Manufacturing [7]	372,600	316,600	367,200	393,500	392,700	363,200	307,200	357,800	384,100	383,300
Trade [6]	356,200	331,000	330,900	345,800	341,400	268,700	253,100	253,000	267,900	263,500

[1] Includes proprietors, self-employed, and unpaid family workers, as well as employees, and excludes domestic service workers.
[2] Preliminary.
[3] Revised.
[4] The total number of work injuries in agriculture is based on cross-section surveys by the U.S. Department of Agriculture in 1947 and 1948, with adjustments for changes in employment. These are considered to be minimum figures. Injuries experienced in performing chores are excluded, and there are some indications of underreporting.
[5] Based largely on data compiled by the Bureau of Mines, U.S. Department of the Interior.
[6] Based on small sample surveys by the Bureau of Labor Statistics.
[7] Based on a comprehensive survey by the Bureau of Labor Statistics.
[8] Based on small sample surveys by the Bureau of Labor Statistics for certain segments and on data compiled from other sources for other segments of the industry.
[9] Based on surveys, as indicated by footnotes 4 to 8, and on vital statistics reports.
[10] Includes approximately 1,300 to 1,500 permanent-total impairments each year.
[11] Includes data for industries not shown separately.

NOTE: These data do not include Alaska and Hawaii.

greater exposure to hazards of work, but the injury rate also increased 10 percent.

In contract construction, injuries in 1959 rose 11 percent, to 217,000. Employment also increased but not as much as did the volume of injuries. There was a net increase of about 7 percent in the injury rate.

Injuries in the transportation industries increased 8 percent, while employment was up only 1 percent. Preliminary reports to the Interstate Commerce Commission indicated an increase in injuries to railway employees, despite a decrease in employment. Most other transportation industries also reported increased injuries. There were increases in both employment and injuries for the trucking and warehousing industry and for air transportation. Only stevedoring recorded a decrease in injuries.

In trade, there was an increase of about 8 percent in injuries, though employment was up only 2 percent.

The finance, service, government, and miscellaneous industries as a group showed an increase of about 7 percent in the volume of injuries. This increase occurred principally in State and local government activities and in service industries. The volume of injuries among Federal Government employees decreased.

Mining was the only major industry to show a decrease in injuries, but this decrease was due entirely to lower employment. According to preliminary reports compiled by the Bureau of Mines, coal mining showed the lowest volume of injuries and deaths for any year on record. However, employment in bituminous coal mining was down 14 percent, and that in anthracite, down 21 percent. Metal mining also showed a decrease in employment and injuries, but most other mining industries showed slight increases in both measures.

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Significant Decisions in Labor Cases*

Labor Relations

Harassing Tactics. The U.S. Supreme Court held that economic pressure by a union in the form of on-the-job conduct designed to interfere with the employer's business was not in itself a refusal to bargain under 8(b)(3) of the National Labor Relations Act.[1]

In this case, a collective bargaining agreement expired while the parties were negotiating a new contract, and the union instituted a "Work-Without-Contract" program consisting of certain planned, concerted on-the-job activities designed to harass the company. Terms were ultimately reached and it was not questioned that, standing alone, the record of negotiations would establish that the union bargained in good faith. Therefore, the sole issue presented in the unfair labor practice charge filed by the employer was whether the union's harassment program, in itself, violated section 8(b)(3) of the NLRA, which provides that it is an unfair labor practice for a labor organization or its agents "to refuse to bargain collectively with an employer. . . ." Holding that the tactics used were the antithesis of reasoned discussion and a violation of the act, the National Labor Relations Board issued a cease and desist order which was subsequently set aside by the court of appeals for the District of Columbia.

Affirming the decision of the appellate court, the Supreme Court stated that at the present statutory stage of our national labor relations policy, two factors exist side by side: (1) the necessity of good faith collective bargaining between the parties and (2) the availability of economic pressure devices to each to make the other party incline to agree on one's terms. Therefore, the Court held, the scope of the NLRA is exceeded by inferring a lack of good faith simply because tactics designed to exert economic pressure were employed during the course of good faith negotiations. Moreover, if the Board, in the guise of determining good or bad faith in negotiations, could regulate what economic weapons a party might summon to its aid, it would be in a position to exercise considerable influence upon the substantive terms on which the parties contract. This, the Court stated, amounts to the Board's entrance into the substantive aspects of the bargaining process to an extent Congress has not countenanced.

Three of the justices concurred in a separate opinion, agreeing with the majority that the use of harassing tactics was not, in itself, a refusal to bargain in good faith, but stating that the Board was not precluded from considering such conduct, in the totality of circumstances, as evidence of lack of good faith.

Offset of Damages Against Fund Contributions. The U.S. Supreme Court held that in the absence of unequivocal language in the agreement itself, an employer was not entitled to withhold the amount of damages owed him as a result of a union's breach of a collective bargaining agreement, from the sum which the employer owed the trustees of the union's welfare and retirement fund under the terms of the same agreement.[2]

The employer in this case was a coal operator signatory to the National Bituminous Coal Wage Agreement of 1950, pursuant to which he had agreed to pay a fixed royalty on each ton of coal produced to the trustees of the United Mine Workers Welfare and Retirement Fund. Asserting that the trustees were third-party beneficiaries of the collective bargaining agreement, the employer withheld payment of that part of the obligation which equaled the damages which the employer sustained as a result of strikes and work stoppages which the union conducted in violation

*Prepared in the U.S. Department of Labor, Office of the Solicitor. The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor law or to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

[1] *NLRB* v. *Insurance Agents International Union* (U.S. Sup. Ct., Feb. 23, 1960).

[2] *Lewis* v. *Benedict Coal Corp.* and *United Mine Workers* v. *Same* (U.S. Sup. Ct., Feb. 23, 1960).

of the agreement. When the trustees brought action to recover the unpaid balance, the employer cross-claimed against the union.

The trial court entered judgment for damages against the union and judgment against the employer for the unpaid balance of the obligation due the fund trustees, and ordered that the trustees' judgment be satisfied out of the proceeds collected by the employer on its judgment against the union. On appeal, the U.S. Court of Appeals for the Sixth Circuit found that the damages awarded the employer were excessive, but affirmed that part of the trial court's order which predicated part of the trustees' recovery on the employer's recovery of damages from the union.

The Supreme Court, modifying the judgment to allow the trustees immediate and unconditional recovery against the employer, noted that the agreement provides that it is an integrated instrument with interdependent provisions, and that it may appear just to make the right of the trustee beneficiaries subject to counterclaims against the union, at least if the claims arise out of the union's breach of the same agreement. However, the Court asserted, the subject agreement is not a typical third-party beneficiary contract. The employer's interest in this contract goes beyond the payment of royalty. With respect to the welfare and retirement fund, the employer and the union have entered into a long-term relationship and have assumed equal responsibility for the management of the fund. In modern industrial relations, it is commonplace for employers to provide, or participate in, programs for the welfare and security of their employees as an additional form of remuneration or wages. For these reasons, the Court averred, the employer has a direct interest in the soundness of the fund. Moreover, the Court pointed out, this contract is an industrywide agreement involving many employers, and the other employers also have an interest in the soundness of the fund which might be adversely affected if the subject procedures were upheld.

In addition, the Court relied on the "national labor policy" which it construed to include the tenet that a union as an entity should, in the absence of agreement, be the sole source of recovery for injury inflicted by it.

The dissenting justice averred that a reading of the Court's opinion compels the conclusion that, if the subject agreement were a "typical" third-party beneficiary contract, the employer would be entitled to withhold from the fund trustees the amount which is owed him for breach of the union's undertaking. The fact that the contract to be construed is a collective bargaining agreement, the justice stated, is not sufficient basis for rejecting general principles pertinent to the enforcement of contracts.

Proof of Single Enterprise. The U.S. Supreme Court held that the NLRB was entitled to an opportunity, by means of a motion for discovery, to prove that companies which had dissipated their assets under the guise of parent and subsidiary corporations in order to thwart the court's order to pay back wages were not separate corporations as they appeared to be, but in fact constituted a "single enterprise." [3]

In 1949, the NLRB had found that Artware had violated the National Labor Relations Act by discharging and refusing to reinstate employees who had engaged in a strike. Thereupon, the Board ordered reinstatement plus back wages for those employees. In 1952, a court of appeals affirmed this decision and remanded this case to the Board for a determination of amounts due individual employees. Thereafter, motions by the Board for discovery and inspection were denied, as was a contempt citation, on the ground that the amounts of back wages had not been determined and the payment of such amounts refused. In arguing these motions, the Board maintained that the company conducted its affairs so as to dissipate Artware's assets and avoid backpay liability, asserting that this was possible because the company was part of a sprawling enterprise substantially controlled by one individual who was majority shareholder in the parent as well as numerous other subsidiary corporations. In 1955, the backpay awards were fixed by the Board at $300,000, and the court of appeals ordered enforcement. When the Board thereafter petitioned the court of appeals to grant a motion for discovery, whereby it could examine the corporate structure to determine whether there were several separate corporations or actually a "single enterprise," the petition

[3] *NLRB* v. *Deena Artware, Inc.* (U.S. Sup. Ct., Feb. 23, 1960).

was denied. At the same time, the court dismissed the contempt proceeding on the ground that the decree was "not sufficiently definite and mandatory to serve as the basis for contempt proceedings." The U.S. Supreme Court granted certiorari in order to consider the validity of the action of the court of appeals in dismissing the petition insofar as it charged the existence of a "single enterprise." The Court held that the Board was entitled to show that these separate corporations were not what they appeared to be; that, in truth, they are but divisions or departments of a "single enterprise." Citing the remarks of Mr. Justice Cardozo—

> Dominion may be so complete, interference so obtrusive, that by the general rules of agency the parent will be a principal and the subsidiary an agent. Where the control is less than this, we are remitted to the tests of honesty and justice. [4]

the Court stated that one company may in fact be operated as a division of another and the affairs of one group may be so intermingled that no distinct corporate lines are maintained.

A concurring opinion would have sustained the contempt petition on the basis of *Merrimack River Savings Bank* v. *Clay Center*,[5] which held that "the willful removal beyond the reach of the Court of the subject matter of the litigation or its destruction until the right shall be determined is, in and of itself, a contempt of the appellate jurisdiction of this Court". The concurrence would make no distinction between that theory and the fact that an adjudication had already established that Artware was liable for back wages. All that remained was that a specification be made of the amounts due individuals. Clearly, there was money due, and the dissipation of Artware's assets frustrated the order of the court, and made the contempt remedy appropriate. Since the petition for contempt should have been sustained as well as the motion for discovery, consideration of the alternate theory of liability for a "single enterprise" was unnecessary.

Secondary Boycott at Primary Situs. In enforcing an NLRB decision which found a union guilty of violating the secondary boycott provisions of section 8(b)(4)(A) of the NLRA (prior to its recent amendment by the Labor-Management Reporting and Disclosure Act), a U.S. court of appeals held that the union's work stoppage was aimed at forcing the primary employer to cease doing business with another person and therefore violated the act.[6]

The Teamsters union held a contract with the Industrial Molasses Corp. which provided that "the company will not, so long as equipment and personnel are available, contract work which is customarily performed by the employees in the bargaining unit to any other company. When necessary to contract work, every effort shall be made to give the work to a contractor who employs members of the International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers." Although the shop steward had voiced his disapproval of the practice of giving overflow work to Bonded Freightways, Inc., whose drivers were represented by another union, the employer insisted on doing so "because the rates were lower." When the more lucrative hauls were given to Bonded's drivers, the Teamsters struck. Following the settlement of the strike, as well as other incidental grievances, the bulk of the overflow work was assigned to a company employing Teamster members and the remainder went to Bonded. In an unfair labor practice charge filed with the Board, Bonded charged that the strike by the Teamsters and their inducement of Bonded employees to stop work had as an object forcing Industrial to cease doing business with it.

In upholding the Board's order, the court of appeals held that the compelling objective of the strike, and its primary and basic purpose, was to force Industrial to stop subcontracting work to Bonded, and not, as the union had contended, to stop Industrial's alleged contract violation in assigning overflow work to a company employing non-Teamster members, without trying to place such work with a Teamster-organized union carrier, and in giving Bonded's drivers the more advantageous hauls. That other grievances were settled at the same time as the strike did not alter the unlawful character of the strike, the court held, since "an object" of the strike violated the statute. It likewise held that Bonded's receipt of the remaining overflow work

[4] *Berkey* v. *Third Avenue Ry. Co.*, 244 N.Y. 84, 93.
[5] 219 U.S. 527, 535–536.
[6] *NLRB* v. *Local 294, International Brotherhood of Teamsters* (C.A. 2, Jan. 12, 1960).

could not alter the conclusion, since a fractional elimination of the company's business was enough to satisfy the statutory requirements.

The dissenting judge looked with disfavor on the majority's inroads upon the right to strike, and ventured that the decision might seriously limit the right of primary strike as preserved in section 8(b)(4), which proscribes secondary strikes and boycotts.[7] The heart of the labor dispute, he said, was Industrial's violation of the seniority protection provided by the subcontracting clause of the contract, which would have subjected the union to economic strangulation had it not offered to defend itself. Disregard of the contract by Industrial gave the advantage in position and pay to independent truckers, and could not but adversely affect the union. As its very existence was at stake, the dissent concluded, the union's choice was inevitable.

Unemployment Compensation

Invocation of Fifth Amendment. The Pennsylvania Supreme Court reversed two decisions of the Superior Court affirming decisions of the Unemployment Compensation Board of Review which had denied unemployment benefits to two claimants who invoked the Fifth Amendment when interrogated regarding alleged affiliations with the Communist Party.

In the first case,[8] the claimant had been summoned to testify before a Senate subcommittee but because of illness was unable to attend and never did appear before the committee. She was then summarily discharged as an "undesirable employee." When, in a hearing to determine her eligibility for benefits, she took protection under the Fifth Amendment for the first time, the referee found that this constituted "willful misconduct in connection with her work" and denied compensation.

In reversing, the court pointed out that the record failed to show that the claimant had been offered a hearing or opportunity to deny the charges prior to her discharge. This, the court pointed out, was not lack of due process but lack of any process whatever. The court, quoting from the case of *Slochower* v. *Board of Education*, stated, "The privilege against self-incrimination would be reduced to a hollow mockery if its exercise could be taken as equivalent either to a confession of guilt or to a conclusive presumption of perjury." [9] Furthermore, in pointing out that the decision of the referee must be based upon facts existing at the time of discharge, the court went on to say that even if the duty of frankness applied to her, the claimant had no chance to be frank or otherwise until after she was discharged; hence, such "willful misconduct" could not possibly have been connected with her work as required by statute, and benefits could not be denied on that ground.

In the companion case,[10] the court faced the problem it had anticipated above, that is, "duty of frankness." The claimant invoked the Fifth Amendment when asked about Communist associations at a Senate subcommittee hearing. His employer, who was engaged in defense work, subsequently suspended him, pending a hearing. At the hearing, the claimant was offered an opportunity to show cause why he should not be discharged, but he declined to do so, maintaining that the burden rested upon the employer to establish that he was a security risk; no evidence of the claimant's willful misconduct was introduced. The claimant was thereupon discharged, and unemployment benefits were subsequently denied on the grounds that his failure to deny membership in the Communist Party and his invocation of the Fifth Amendment constituted "willful misconduct connected with his work." This decision was affirmed by the superior court for the following reasons: (1) The appellant refused to furnish information to the compensation authorities bearing upon his right to compensation; and (2) he was guilty of willful misconduct connected with his work when he refused to answer the charges against him when called upon by his employer to do so.

In reversing the decision below, the court emphasized that the burden of proving that the

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[7] As amended by section 704(a) of the LMRDA, the pertinent provision reads: "Provided, that nothing contained in this clause (B) shall be construed to make unlawful, where not otherwise unlawful, any primary strike or primary picketing."

[8] *Darin* v. *Unemployment Compensation Board of Review* (Pa. Sup. Ct., W.D., No. 104, March term 1959, Jan. 18, 1960).

[9] 350 U.S. 551, 76 U.S. Sup. Ct. 637 (1956).

[10] *Ault* v. *Unemployment Compensation Board of Review* (Pa. Sup. Ct., M.D., No. 54, May term 1959, Jan. 18, 1960). For a summary of the lower court decision, see Monthly Labor Review, May 1959, pp. 580–581.

discharge was for "willful misconduct connected with his work" was on the compensation authorities. Furthermore, the court stated, in once more citing *Slochower*, that unemployment benefits may not be denied merely because an individual invokes the Fifth Amendment. In the court's words, "The authorities must show the claimant to be subversive. Here, far from assuming any burden of proof, they sought to make him prove his innocence. They showed only that he failed to disclose, but with no basic finding of subversion, he is entitled to the presumption of innocence set forth in *Slochower*."

Wages and Hours

Retail or Service Establishment Exemption. The U.S. Supreme Court held that an employer claiming exemption under section 13(a) of the Fair Labor Standards Act as a "retail or service establishment" must show compliance with each of the specific statutory criteria laid down by Congress in amending the exemption in 1949.[11]

The employer in this case conducted a custom furniture and interior decorating business and, on the same premises, fabricated aircraft parts from phenolic, a cloth-impregnated phenol resin. An employee who was employed primarily in the fabrication of aircraft parts recovered a judgment for unpaid overtime compensation in the district court. This judgment was reversed by the Court of Appeals for the Fifth Circuit, which held that the employer operated a retail or service establishment, exempt from the act's requirements under section 13(a)(2).

The Supreme Court reversed the court of appeals and reinstated the judgment of the district court. The Court pointed out that under section 13(a)(2), as amended in 1949, a "retail or service establishment" is exempt only if more than 50 percent of its annual dollar volume of sales is made within the State, if 75 percent of its annual sales volume is not for resale, and if 75 percent of its annual sales volume is recognized within the industry as retail sales. A retailer-manufacturer must satisfy not only these requirements, but also additional requirements laid down by section 13(a)(4) for a retail establishment which makes or processes the goods it sells. The Court held that in this case the conclusion of the court of appeals, that the employer's sales met the "industry recognition" test, was unjustified, since there was no evidence on record to support it. The Court held, further, that the employer's sales of aircraft parts, which exceeded 25 percent of its annual sales volume, were "clearly within the concept of resale," defeating the claim to exemption. The Court held it immaterial that the phenolic sales were a "sideline" from the employer's viewpoint, since the express statutory percentage tests had not been met.

The dissenting justice felt that the employer may have operated more than one "establishment"—for purposes of the exemption—upon his premises, and that the employee had not sustained the burden of showing that all the overtime hours for which he claimed compensation had been performed in nonexempt work.

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[11] *Arnold* v. *Ben Kanowsky, Inc.* (U.S. Sup. Ct., Feb. 23, 1960).

Chronology of Recent Labor Events

February 1, 1960

A 3-YEAR AGREEMENT between the Ladies' Garment Workers' Union and Philadelphia dressmakers affiliated with the Fashion Apparel Manufacturers and the Philadelphia Apparel Producers Association went into effect. Covering about 7,000 employees, the pact included a 5-percent pay raise, except that cutters received a flat $5-weekly increase, and an increase in employer contributions toward severance pay from 0.5 to 1 percent of the payroll.

ABOUT 5,100 MEMBERS of the Street, Electric Railway and Motor Coach Employes ratified a 2-year contract with the Public Service Coordinated Transport Co. (of New Jersey) calling for a three-step 16-cent-an-hour wage increase (6 cents effective immediately) and changes in the cost-of-living escalator clause. (See also p. 402 of this issue.)

February 2

THE FEDERAL DISTRICT COURT in Washington, D.C., found William Presser, president of the Teamsters Joint Council 41 in Cleveland, guilty of contempt of Congress for his refusal to tell the Senate Select Committee on Improper Activities in the Labor or Management Field whether he had destroyed personal and union records after they had been subpenaed by the committee.

February 4

IN REVERSING a National Labor Relations Board decision, the U.S. Court of Appeals in Philadelphia upheld the right of a union to refuse to bargain with a management representative who was formerly an official of the union. (See Chron. item for Feb. 13, 1959, MLR, Apr. 1959.) The court found that the association "clearly displayed an absence of fair dealing" when it selected and insisted upon this particular representative and held that a rule of reason must govern the application of the principle that employers and unions are free to choose their own representatives without objection by the other. The case was *NLRB* v. *International Ladies' Garment Workers' Union.*

PRESIDENT RICHARD J. GRAY of the AFL–CIO Building and Construction Trades Department announced his retirement, effective March 1, at the department's executive council meeting at Bal Harbour, Fla. (See also p. 404 of this issue.) He will be succeeded by Cornelius J. Haggerty, now secretary-treasurer of the California State Federation of Labor.

February 7

ANNOUNCEMENT WAS MADE of a 2-year agreement between the Glass Bottle Blowers and the Glass Container Manufacturers Institute representing 25 companies, covering 8,000 forming-department employees in 79 plants and providing for hourly wage increases of 6.5 to 13.5 cents on March 1, 1960, and 7 to 10 cents a year later. Other terms included a seventh paid holiday and improved pensions.

February 8

THE U.S. DISTRICT COURT for the District of Columbia ruled that six contracts for coal awarded to a company by a Government agency constituted a single contract subject to the Walsh-Healey Public Contracts Act, even though only one was a contract in excess of $10,000. The case was *Capitol Coal Co., Inc.* v. *Mitchell.*

February 11

A 6-MONTH STRIKE ended at the Anaconda Co.'s establishments at Butte, Great Falls, and East Helena, Mont., when members of the Mine, Mill and Smelter Workers ratified a new contract, to run until June 30, 1962, providing for a package increase with an estimated value of 23 cents for about 3,000 employees.

The Anaconda settlement followed about a week after the MMSW'S agreements (subsequently ratified by union members) with the Phelps Dodge Corp. for its properties in Arizona and El Paso, Tex. (See also p. 400 of this issue.)

February 12

ACTING UNDER the Railway Labor Act, President Dwight D. Eisenhower created an emergency board to investigate a dispute between the Brotherhood of Locomotive Engineers and the Atcheson, Topeka, and Santa Fe Railway Co., involving rules and working conditions on the company's Coast Lines Division covering Arizona, California, and New Mexico.

On February 29, the President created a similar body to study a dispute between the Order of Railway Conductors and Brakemen and the New York Central Railroad, thus forestalling a threatened strike over the assignment of train conductors rather than Pullman conductors to service the railroad's sleeping cars.

February 15

RATIFICATION of 25-month contracts by members of the Meat Cutters and the Retail Clerks in the Washington, D.C., area ended a strike of 1,900 butchers employed by six large food chains. More than 250 markets in the area closed on February 10, when close to 5,000 clerks refused to cross the picket lines. Over the 25-month period of the contract, weekly wage increases will amount to $11.27 for journeyman meat cutters and up to $9.27 for clerks. (See also p. 402 of this issue.)

February 17

THE AFL–CIO EXECUTIVE COUNCIL concluded its 10-day meeting at Bal Harbour, Fla., after dealing with organizing problems, internal disputes, and economic policy. Among its major actions was the lifting of monitorship from the United Textile Workers (see Chron. item for Dec. 5, 1957, MLR, Feb. 1958 and also p. 403 of this issue).

THE NLRB held that the Congress, in enacting the Landrum-Griffin Act's proviso exempting the construction industry from the act's ban on hot-cargo agreements, did not intend to grant unions immunity for actions which the Board had theretofore regarded as violations of the secondary-boycott provisions of the Labor Management Relations Act; thus a union which negotiates a hot-cargo clause with an employer may not use secondary boycott pressures against that employer if he violates the agreement. The case was *Local 12, International Union of Operating Engineers* and *Tri County Association of Civil Engineers and Land Surveyors*

February 18

THE UNITED PACKINGHOUSE WORKERS announced ratification by its members of a 2-year agreement with Wilson & Co., ending a violence-marked 3-month strike at the company's meatpacking plants in six cities (see Chron. item for Dec. 11, 1959, MLR, Feb. 1960). The contract provided for general wage increases of 15 cents an hour over the contract period. The issue of rehiring strikers for whom the company had hired permanent replacements was to be arbitrated. (See also p. 401 of this issue.)

THE NLRB interpreted U.S. Supreme Court decisions (including *Nutone, Inc.*—see Chron. item for June 30, 1958, MLR, Aug. 1958) as establishing the following principles regarding employer no-solicitation rules: (1) rules which prohibit distribution of union literature or solicitation of members on company property during nonworking time are invalid unless they are necessary for the maintenance of production or discipline; (2) rules limited to working hours are valid if not applied discriminatively or unfairly; and (3) a prohibition aimed at nonemployee organizers is valid, provided the union has other means of reaching the employees and the employer does not discriminate against the union by allowing other solicitation. The case was *Walton Manufacturing Co.* and *Amalgamated Clothing Workers.*

THE FEDERAL COURT OF APPEALS in New Orleans ruled, contrary to prior opinions of other Federal appellate courts (see Chron. item for Mar. 27, 1957, MLR, May 1957) that, in unfair-labor-practice cases involving jurisdictional disputes between unions, the Taft-Hartley Act's provision directing the Board "to hear and determine" a dispute underlying an unfair-practice charge does not require the Board affirmatively to assign the disputed work to one of the contending unions. The decision was in *NLRB* v. *Local 450, International Union of Operating Engineers* and two companion cases.

A FEDERAL COURT in New York City dismissed an indictment charging Fruehauf Trailer Co., Associated Transport, Inc., and Brown Equipment & Manufacturing Co. and two of their officials with illegally paying $200,000 to Dave Beck (also cited in the indictment) in 1954, when Beck was president of the Teamsters. (See Chron. item for June 17, 1959, MLR, Aug. 1959.) The court found that the transaction was a "loan, pure and simple."

Earlier in the month, the Washington State Supreme Court had upheld Beck's conviction on the charge of stealing $1,900 received from the sale of a union automobile. (See Chron. item for Feb. 20, 1958, MLR, Apr. 1958.)

February 19

SECRETARY OF LABOR JAMES P. MITCHELL, acting under the Longshore and Harbor Workers' Compensation Act, issued new health and safety standards, effective March 21, 1960, to provide on-the-job protection for longshoremen and ship-repair workers. A field safety staff in 17 principal ports will administer the regulations and will provide accident prevention services.

February 20

PRESIDENT DWIGHT D. EISENHOWER issued an order prescribing revisions in the industrial security procedures of firms doing defense work for the Government. Under the new system, a worker accused as a security risk is entitled to confront and cross-examine his accusers, except where (1) the accuser is a confidential informant for the Government and the disclosure of his identity would be substantially harmful to the national interest, (2) the accuser is physically unable to appear (because of severe illness or similar reasons), and (3) the head of the Government agency concerned has a "good and sufficient" reason to withhold the informant's name. To invoke the last two exceptions, the agency head or his designee must have determined that the information is reliable and the failure to use it may substantially harm national security. Final adverse decisions may be made only "upon personal review" of the case by the head of the agency.

February 22

THE UNITED STEELWORKERS signed a 2-year contract with the Timken Roller Bearing Co. for about 9,500 workers in Canton, Columbus, and Wooster, Ohio, including provi-

sions for two 7-cent-an-hour wage increases (on December 4, 1960, and October 1, 1961), additional raises for some skilled workers, and assumption by the company of the full cost of the insurance program.

February 23

THE U.S. SUPREME COURT ruled, in reversing the NLRB, that workers who used on-the-job harassing tactics—such as reporting late to work and refusing to perform certain office duties—during contract negotiations did not violate the Taft-Hartley Act's requirement to bargain in good faith. The Court held that if the Board could regulate the sort of weapons used during negotiations, it would be entering "into the substantive aspects of the bargaining process to an extent Congress has not countenanced." The case was *NLRB* v. *Insurance Agents International Union*. (See also p. 392 of this issue.)

The U.S. SUPREME COURT ruled that the Benedict Coal Corp. could not withhold damages, resulting from the United Mine Workers' breach of contract, from the amount which Benedict owed the trustees of the union's welfare and retirement fund under the terms of the same agreement, holding that the union as an entity was the sole source of recovery for injury caused by its breach of contract. The case was *Lewis* v. *Benedict Coal Corp.*; *United Mine Workers* v. *Same*. (See also p. 392 of this issue.)

February 24

TEAMSTER VICE PRESIDENT HAROLD J. GIBBONS, Sidney Zagri (union legislative counsel), and four officials of Locals 405 and 688 in St. Louis, Mo., were charged by a Federal grand jury with violation of the Corrupt Practices Act by illegally contributing $12,763 to various candidates for Congress in the 1956 election. The two locals, which were also indicted, had allegedly put deductions from monthly membership dues into general union funds out of which the contributions were made.

February 28

RETAIL, WHOLESALE AND DEPARTMENT STORE members approved a 2-year contract with Stern Bros. department stores in New York City, providing for a 9-cent hourly wage increase (with an additional 1-cent inequity adjustment for clerks and stockroom workers) and a $15 increase (to $50) in monthly pension benefits. About 1,400 employees were affected.

Developments in Industrial Relations*

Wages and Collective Bargaining

Textiles. Pay raises for unorganized workers in the southern textile industry were presaged by a statement made early in February by J. Spencer Love, chairman of Burlington Industries, Inc., that his company expected "modest wage advances" for some of its divisions. This was followed in mid-February by announcement by several major textile producers of definite plans to increase wages. Press accounts reported that the raises would probably amount to about 5 percent. Among the companies that announced plans to raise wages—some of which were to become effective February 29—were Greenwood Mills, Kendall Co., M. Lowenstein & Sons, Spartan Mills, Spring Cotton Mills, J. P. Stevens and Co., Inc.,[1] West Point Manufacturing Co., and plants selling through Deering Milliken & Co. Prior to the increases, straight-time average hourly earnings in southern cotton, silk, and synthetic textile mills were about $1.46 an hour.

Three carpet companies—E. T. Barwick Mills, Inc., Cabin Craft, Inc., and Belcraft Chenilles, Inc.—gave their employees notice of a pay raise. In the synthetic yarn industry, the Textile Workers Union and the Celanese Corp. of America agreed in early February on a pay increase averaging 8 cents an hour for about 1,500 employees of the company's Celriver plant in Rock Hill, S.C. The increase was negotiated under a wage reopening clause of a 2-year contract expiring in March 1961.

Metalworking. The last of the 1959–60 major strikes in the copper industry ended on February 11, with ratification of a new contract with the Anaconda Co. by members of the International Union of Mine, Mill and Smelter Workers (Ind.). About 3,000 workers in Great Falls, Butte, and East Helena, Mont., had been affected by the strike which began in August 1959. The contract will run until June 30, 1962; details were not immediately available, but it was apparently similar to others reached earlier in the industry. Pay raises consisted of two general wage increases of 7½ cents an hour—the first retroactive to July 1, 1959, and the second scheduled for May 1, 1961; classification adjustments up to about 20 cents an hour were also made. Gains in fringe benefits—estimated at about 8 cents an hour—included liberalized pensions, health and welfare, and holiday benefits.

About a week earlier, tentative agreements had been reached to end strikes, which had also been in effect since August, at the El Paso, Tex., copper refinery and the Arizona mines and mills of the Phelps Dodge Corp., by members of the MMSW. The Phelps Dodge agreements expire June 30, 1962, and call for package increases of between 32.5 and 33 cents an hour at El Paso, and 33.2 cents at the company's Arizona locations. The MMSW–Kennecott contract reached in December was for 18½ months and was valued at 22.3 cents.[2] Details of the El Paso contract were not immediately available but were presumably similar to the Arizona agreement, which provided for three wage increases, each averaging about 9.6 cents an hour—the first effective immediately, and the next two scheduled for July 1 of 1960 and 1961. The increases consisted of a general raise of 8.5 cents an hour plus a ¼-cent increase in increments between job classes, which the company said would average 1.1 cents an hour. The remainder of the package—about 4.4 cents—was for improved vacation, medical, and holiday benefits.

In the wake of the memorandum of agreement signed on January 5, 1960, by 11 major basic steel producers,[3] similar settlements between steel companies and the United Steelworkers continued to be reported. Among the settlements were those with the Alan Wood Steel Co. and the Blaw Knox Co., covering a total of about 7,000 workers, and

*Prepared in the Division of Wages and Industrial Relations, Bureau of Labor Statistics, on the basis of currently available published material.

[1] Preliminary accounts indicated the increase was applicable to 6,500 employees of Stevens in the Greenville, S.C., area. The company has about 33,000 employees but did not say whether all of its workers would get pay increases.

[2] See Monthly Labor Review, February 1960, pp. 183–184.

[3] See Monthly Labor Review February 1960, pp. 161–163 and 181–182.

the Acme Steel Corp., for about 2,500 employees at its Riverdale, Ill., plant. At the Tennessee Coal and Iron Division of the U.S. Steel Corp., a scheduled strike by the Brotherhood of Locomotive Firemen and Enginemen was averted by a settlement reached in late January.

A contract increasing wages and improving pension and insurance benefits was signed between the Timken Roller Bearing Co. and the United Steelworkers for about 9,500 workers in Canton, Columbus, and Wooster, Ohio. The previous agreement had expired in August, but work continued under a contract extension. The settlement calls for two 7-cent general wage increases, the first effective December 4, 1960, and the second on October 1, 1961. Additional increases were negotiated for some skilled workers. The cost of the insurance program, formerly shared equally by the company and employees, is to be paid wholly by the company.

The Fafnir Bearing Co. and the United Automobile Workers agreed upon a 2-year contract under which wages were increased effective February 1, 1960, and will be further increased on January 25, 1961. The first year, pay raises are to be 10 cents an hour for timeworkers and 3 percent for pieceworkers. In the second year, the increases will amount to 9 cents an hour for timeworkers and the equivalent of 6 cents an hour for pieceworkers. In addition, the agreement incorporated into the rate structure 6 of the 8-cent cost-of-living allowance, provided for future escalator adjustments on a semiannual instead of quarterly basis, and liberalized vacation and funeral leave benefits. About 4,000 workers were affected.

A settlement providing an average 10½-cent-an-hour pay increase for about 7,500 employees of the Minneapolis-Honeywell Regulator Co. represented by the Teamsters union was ratified by the local's membership in late January. General wage increases ranged from 6 to 16 cents an hour. Inequity adjustments for some job classifications were also made. An additional paid half holiday, bringing the total to seven, and extension of the company's stock-purchase plan to hourly-rated employees were agreed to. Negotiations were conducted under a reopening clause, with the union agreeing to extend the present contract to February 1, 1962. Another reopening is scheduled for next year.

Other Manufacturing. A 2-year contract offer made by Wilson & Co. to members of the United Packinghouse Workers was accepted by union members on February 18, ending a strike at seven of the meatpacker's plants in effect since early November. The agreement provided for general wage increases totaling 15 cents an hour over the contract period, additional wage increases to correct job inequities, higher pay for night-shift and Saturday and Sunday work, and improvements in pensions, vacations, and in clothing and meal allowances. About 5,500 union members were affected by the contract, but during the strike the company reportedly continued to operate at about 75 percent of its normal level, using about 1,000 nonstriking union members and some 3,000 nonunion personnel who were hired as "permanent replacements" for those on strike. To settle the issue of rehiring striking workers, the parties agreed to accept the decision of a 3-man arbitration board.

Increases in pay, ranging from 6.5 to 13.5 cents an hour, were included in a 2-year contract signed by the Glass Bottle Blowers Association and the Glass Container Manufacturers Institute. The agreement—which became effective March 1, 1960—affected about 8,000 skilled employees of 25 companies operating 79 plants across the Nation. Additional pay raises of from 7 to 10 cents are scheduled for March 1, 1961; fringe benefit changes included a seventh paid holiday and pension improvements.

Retail Trade. In the Chicago area, an agreement affecting about 13,000 workers was reached in late January by the Retail Clerks International Association with the Associated Food Retailers of Greater Chicago (representing independent food stores) and the A. & P., Del Farm, Kroger, National, and Sure Save chain food stores. The 2-year contract—retroactive to November 22, 1959—included $4- and $5-weekly increases for full-time women and men clerks, respectively, and a 10-cent-an-hour raise for part-time help. Additional advances of $4 a week for regular employees and 10 cents an hour for part-time workers are scheduled for the second contract year. Provision for a health and welfare trust fund into which employers will contribute $16 a month for each eligible employee, beginning December 1, 1960, was incorpo-

rated into the agreement. Some of the chain stores reportedly had previously had welfare programs that were not part of their collective bargaining agreements.

In the Washington, D.C., metropolitan area, a strike of the Meat Cutters union that began on February 10, and closed more than 250 food chain stores, ended on February 15 with the ratification of new contracts by MCBW members and members of the Retail Clerks union. The clerks had been working without contracts prior to the strike and respected the Meat Cutters' picket lines. The contracts, affecting a total of about 7,000 workers, are for 25 months (the Meat Cutters had reportedly struck against a proposed 28-month contract). Over the contract period, raises for employees in the meat department will amount to $11.27 a week for journeyman meatcutters and $7.77 for wrappers; grocery clerks will receive increases ranging from $3.27 to $9.27 a week. By April 1961—the date of the last wage installment under the contracts—their respective top weekly scales will be $103, $82, and $97. Other contract changes included a 2½-cent-an-hour increase in the employers' contributions to the health and welfare fund (total 12½ cents) and the addition of a fourth week's vacation after 20 years' service.

A 2-year agreement between the Stern Brothers department stores in New York City and the Retail, Wholesale and Department Store Union was ratified by the union membership on February 28, 1960. The agreement, affecting about 1,400 employees, provided an immediate 9-cent-an-hour pay increase, an additional 1-cent-an-hour inequity adjustment for clerical and stockroom employees, and an increase in pensions from $35 to $50 a month exclusive of social security benefits.

Also in the New York City area, members of the International Ladies' Garment Workers' Union in early January ratified a contract providing pay increases plus a reduction in weekly hours and improved fringe benefits for about 3,500 office and distribution workers employed at the headquarters of 30 women's apparel chain stores, represented by the Women's Apparel Chains Association, Inc. The settlement raised wage rates by $3 a week, effective immediately, scheduled an additional $2.50-a-week increase for the beginning of 1961, and effective January 1, 1962, reduced the workweek from 37½ to 35 hours—the equivalent of a 7-percent raise. Employer contributions to the union's health and welfare and retirement funds were each increased by 0. 5 percent.

Transportation. Increases in pay became effective on February 15 for about 15,000 unlicensed seamen in the deck, engine, and steward departments of American flag passenger and dry-cargo ships operating out of Atlantic and Gulf coast ports. The agreement—negotiated by the Seafarers' International Union under a wage reopener of a contract expiring September 30, 1961—included base pay raises of $5.50 a month (to $369.17) for able-bodied seamen and $30.49 a month (to $493.95) for boatswains. The increases brought the rates into approximate alinement with those recently negotiated by the National Maritime Union.[4] In addition to the wage changes, the companies agreed to a 28-cent per man-day increase in their contributions to the vacation plan, bringing their total payments to $1.48 a day.

A contract increasing wages by at least 19 cents an hour over a 2-year period for about 5,100 employees of the Public Service Coordinated Transport Co. (of New Jersey) was ratified by members of the Street, Electric Railway and Motor Coach Employes Union on February 1, 1960. A previous 3-cent cost-of-living allowance was incorporated into base rates. Wage rates were increased by 6 cents immediately and are to go up 5 cents more both in August 1960 and on February 1, 1961. An additional 3-cent increase in August 1961 is conditional upon the operation of the revised escalator clause. Under this clause, the first quarterly adjustment will not fall due until February 1, 1961 (predicated on the change of the December 1960 Consumer Price Index over a base index of September 1960). If the cost-of-living adjustments do not result in increases sufficient to bring the operators' maximum hourly rate to at least $2.57 by August 1961, then the rates will be adjusted to meet this level. Fringe benefit changes consisted of an eighth paid holiday (Election Day) and the company's assumption of a larger part of the cost of hospitalization insurance.

Services. New 3-year contracts affecting about 21,000 building service employees in New York

[4] See Monthly Labor Review, February 1960, p. 184.

City were negotiated in mid-February by the Realty Advisory Board on Labor Relations, Inc., and the Midtown Realty Owners Association with the Building Service Employees' International Union. The settlements provided for a 7.5-cent-an-hour wage increase, effective January 1, 1960, and 5 cents more on both January 1 of 1961 and 1962. Fringe benefit improvements included establishment of a sick-leave plan, increased employer contributions to the welfare plan, premium pay for Saturday work beginning in 1962, and liberalized severance pay (with a separate and higher pay schedule for elevator operators displaced by self-service elevators).

Meetings

AFL–CIO Executive Council. The AFL–CIO Executive Council meeting in Bal Harbour, Fla., February 8–17, deliberated on a variety of problems—including organizing, the status of industrial relations, internal disputes, and economic policy. A report by the AFL–CIO's director of organization, John W. Livingston, indicated that since December 1955 the "organizable work force" (excluding agricultural workers, domestics, and supervisory employees) had increased by about 2 million workers, but during that time the strength of AFL–CIO and independent unions had declined slightly—from 40 to 39 percent of their potential. Mr. Livingston attributed the decline to "ferocious attacks" by employer groups and labor's inability to overcome internal dissension. To remedy the situation, he proposed three steps: (1) the AFL–CIO to rule which member union should have jurisdiction over potential new members, since existing jurisdictional lines frequently overlap; (2) training schools for organizers to be established; and (3) affiliated unions to increase the number of staff organizers and spend more money on organizing.

The thorny problem of jurisdiction between industrial and construction unions over maintenance and repair work was aggravated by Walter P. Reuther's charge that building trades unions had joined in a "union-busting" compact with the independent International Brotherhood of Teamsters. Mr. Reuther's statement concerned a joint labor-management effort in the construction industry to persuade operators of large industrial plants to contract out maintenance and repair work on the grounds of lower costs and greater efficiency. The issue was intensified by the report that James R. Hoffa, president of the Teamsters union, and the heads of the 18 building unions had signed such a maintenance agreement with at least one large industrial enterprise. Mr. Reuther said that he felt such an agreement was in conflict with the Federation's ban against alliances between its affiliates and expelled unions. The building crafts, on the other hand, contended their drive was intended to counter those contracts allegedly held by the industrial unions containing clauses which prohibit firms from contracting out any work except with union approval. This development, together with other differences, deadlocked efforts by a 5-man committee set up in August 1959 to draft a formula for arbitrating interunion disputes.[5] AFL–CIO President George Meany said the AFL–CIO executive committee would meet subsequently with the disputes committee to help reach an agreement as soon as possible.

An economic policy statement issued by the Executive Council criticized the administration's counter cyclical measures as "lopsided" policies, which "might produce a 1961 recession in which the losses could be greater" than in the 1953–54 and 1957–58 slumps. It called upon the Government to adopt a "bold dynamic program" by (1) reversing the "tight money" policy; (2) expanding governmental programs in public services; (3) increasing defense expenditures; (4) balancing business investment with consumers' demands; (5) increasing purchasing power, especially for low-wage groups; and (6) revising the tax structure "to promote greater equity."

The Council restored the United Textile Workers to full autonomy (the UTW had been on probation since December 1957 following charges of domination by corrupt elements [6]), urged that the minimum wage under the Fair Labor Standards Act be increased to $1.25 an hour and that the law's coverage be extended, and supported a 12-percent salary increase for Federal employees.

[5] See The Third Biennial Convention of the AFL-CIO (in Monthly Labor Review, November 1959, pp. 1206–1210).

[6] See Monthly Labor Review, February 1958, pp. 148–149.

Building Trades. The AFL–CIO Building and Construction Trades Department Executive Council met just prior to the Federation's Council meeting. Members considered a tentative plan to drastically curtail strikes in the construction industry. The plan was formulated by the Construction Industry Joint Conference—a labor-management organization set up in 1959 by the 18 unions of the Department and principal employer associations in the construction industry.[7] The proposal would establish a national joint appeals board to which contractors and local unions would bring all disputes not resolved through direct negotiations. The board would function on a voluntary basis, with the parties free to choose between submitting their differences for final decision or for recommendations. If the international unions and the employer groups accept the plan, local affiliates would be urged to participate and to incorporate in their agreements provisions for referring all future disputes to the appeals board.

Richard J. Gray, president of the Building Trades Department since 1946, revealed his plans to retire from office because of his age and the illness of his wife. Efforts had reportedly been made a year ago to persuade Mr. Gray to step down. He had opposed the expulsion of the Teamsters union in December 1957, and in that same year had urged a moratorium on wage increases as a step to combat inflation.[8] Cornelius J. Haggerty, secretary-treasurer of the California State Federation of Labor, was named by the Department's Executive Council to succeed Mr. Gray.

Teamsters. The quarterly meeting of Teamsters' International Executive Board was concerned with plans to seek a 3-year nationwide trucking contract in negotiations with firms whose contracts will expire within the 90-day period beginning February 1, 1961.

Mr. Hoffa announced on February 25 that, in addition to plans for a single national trucking agreement, he was planning to meet with three unions in the retail trade industry regarding a proposal to achieve national agreements covering clerks, butchers, warehousemen, and drivers employed by supermarket chains. The three unions—all affiliated with the AFL–CIO—are the Retail Clerks International Association, the Retail, Wholesale and Department Store Union, and the Amalgamated Meat Cutters and Butcher Workmen. The Teamsters union reportedly was aiming to complete contract integration within 3 years by negotiating agreements during this period with uniform expiration dates, thus permitting coordinated bargaining covering members of all four unions.

On February 15, lawyers purporting to represent more than 116,000 Teamster members filed a motion with Federal District Court Judge F. Dickinson Letts to intervene in the 2-year-old proceedings originally brought by 13 dissident members to bar Hoffa from the union presidency. Claiming not to represent the international union, the lawyers said they wished to speed up the election of international officers and the discharge of the board of monitors. The petitioners alleged that they were more representative of the union membership than the 13 members who had originally brought charges against Hoffa's election; that the board did not consult with the union on all policy issues; and that it cost the union $1,000 a day to pay the monitors' salaries, legal bills, and other expenses.

Apparel. The Executive Board of the International Ladies' Garment Workers' Union voted on January 28 to merge pension funds covering 100,000 of the union's New York members. It was the first step in a program for amalgamation of all retirement reserves for 420,000 members in the United States, which will eventually enable members to move from one branch or area of the industry to another without losing pension rights. The initial merging of funds affects 15 locals representing workers employed primarily in making knitwear, blouses, skirts, undergarments, sportswear, and children's clothing. David Dubinsky, president of the ILGW, said funds of the Dress Joint Board and the Cloak Joint Board, covering about 250,000 other ILGW members in the New York metropolitan area, would become part of the national combination within 18 months. A similar program for merging severance-pay funds, which Mr. Dubinsky said covered three-quarters of the ILGW membership, was also underway.

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[7] See Monthly Labor Review, March 1959, p. 303.
[8] See Monthly Labor Review, February 1958, p. 191.

In February, Local 23 of the ILGW and the National Skirt and Sportswear Association were reported to be considering establishment of a pilot needle trades plant to study new manufacturing procedures in order to raise production efficiency, and therefore lower costs, and to increase workers' earnings. A five-man committee, appointed by the association's board of directors, was set up to study the costs of the project, where it could be located, and the number and types of machines to be installed. Methods of financing the project were to be worked out among the employers belonging to the association; workers for the test plant would be recruited by the union.

The Amalgamated Clothing Workers' Executive Board, meeting in Miami Beach, was concerned primarily with the influx of "sweatshop" imports from Hong Kong and Japan and organizing problems. On the first issue, the union joined three other unions (the ILGW, the United Hatters, Cap and Millinery Workers, and the Textile Workers Union of America) in a program to curb imports. Their plan called for protective action by the Congress, the Tariff Commission, and the Department of State; consumer education campaigns; and the enforcement of contractual bans against the handling of nonunion goods. ACWA President Jacob Potofsky warned that unless steps were taken to limit imports from the Far East, "irreparable injury" would occur to the apparel-textile industries. Claiming that the volume of cotton shirts imported from Hong Kong had increased sixfold in a 7-month period during 1959, he said continuation of this trend would represent a "disastrous" threat to the "living standards of American workers in the cotton garment industry . . ."

Mr. Potofsky further announced that the same unions had also joined forces in a drive to organize some 500,000 workers, mostly in the southern apparel and textile industries. The campaign was to concentrate on specific areas, to be selected after field reports on organizing potential. Further details were to be worked out at a meeting of top officers of the four unions early in March.

Other Meetings. Overall bargaining goals for 1960 were formulated in early February at a 3-day meeting of the Collective Bargaining Policy Committee of the Communications Workers of America. Among the union's demands were higher wages, improved vacation and pension benefits, and company-paid health insurance. Negotiations for new contracts covering about 355,000 workers, the majority of whom are employed in the Bell Telephone system, are to begin in late April and early May.

In February, the Amalgamated Meat Cutters gave notice during their Executive Board meeting of intention to terminate a 4-year-old work-jurisdiction agreement covering inside work at retail food stores with the Retail Clerks International Association. The notice followed a jurisdictional controversy over delicatessen department employees in the Los Angeles area. The Meat Cutters had interpreted the agreement to include these employees within their jurisdiction, although the workers had been affiliated for years with the Clerks. The agreement had been on an automatic annual renewal basis, subject to a 6-month cancellation notice by either party.

Other Developments. A court test of the Federal Aviation Agency's order setting a 60-year age limit for pilots flying commercial airliners began in mid-February in a Federal district court in New York City. In a suit filed in January, the Air Line Pilots Association had alleged that the order exceeded the Agency's authority and the necessity for it was not borne out by the facts. The FAA—citing the advice of medical and air safety experts—said that the retention of pilots past the age of 60 was a "hazard to safety in air carrier operations."

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Book Review and Notes

EDITOR'S NOTE.—*Listing of a publication in this section is for record and reference only and does not constitute an endorsement of point of view or advocacy of use.*

Special Reviews

Made in New York: Case Studies in Metropolitan Manufacturing. By Roy B. Helfgott, W. Eric Gustafson, James M. Hund. Cambridge, Mass., Harvard University Press, 1959. 388 pp. $6.75.

Wages in the Metropolis: Their Influence on the Location of Industries in the New York Region. By Martin Segal. Cambridge, Mass., Harvard University Press, 1960. 211 pp. $4.75.

These complementary books are the second and fourth in a nine-volume series on the forces that shape the New York metropolitan region. The methods of approach in these two studies differ. One study examines three of the region's key manufacturing industries to identify the forces responsible for growth and decline. The other is concerned primarily with tracing the influence of wages in conditioning the location of industries in the region. Projections concerning employment in 1965, 1975, and 1985 are made in both studies.

Studies of this nature could not have appeared at a more opportune time since, currently, there is considerable discussion as to whether New York should be classified as a high- or low-wage area. Hearings have been held by a New York City Council committee on the cause of low wages in New York City. Professor Segal notes that average earnings in the New York metropolitan region tend to be below those of several important manufacturing centers of the Nation because a large proportion of the region's manufacturing belongs to the category of relatively low-wage industries, such as the garment and other consumer light-goods industries. However, both studies emphasize that the relative position of the New York metropolitan region presents quite a different picture when wage-cost comparisons are made between areas on an industry-by-industry basis and especially with respect to segments of industries, as is done in these books.

It should be kept in mind, particularly in evaluating the employment projections, that manufacturing employment, which is the primary concern of these books, accounts for only about 28 percent of the region's total employment. The three key industries included in the case studies—apparel, printing, and electronics—employ a total of about 7 percent in the entire labor force in the region. Major attention is given by Professor Segal in his study to about 1 percent of the region's jobs in industries and splinters of industries that are under powerful pressure to find lower labor costs.

An evaluation of the scope of individual volumes is difficult in a series which has not as yet been completed. It is hoped that future volumes will give further consideration to the forces which attract and retain industries in the region and will develop more fully factors such as collective bargaining and minimum-wage legislation in relation to their effect on geographical wage differences.

It is interesting to note that Professor Segal concluded by calling attention to the importance of training programs for skilled workers and technicians. This was referred to as a measure which would enhance the locational advantage that the region offers to the complex, the variable, and the highly specialized types of economic pursuits.

The authors of both books constantly point out the limitations of the data and the difficulties involved in making comparisons and projections. The absence of adequate data relating to productivity was generally recognized. The basic sources used by Professor Segal were Bureau of Labor Statistics industry and community wage surveys, the hours and earnings series, and surveys of union wage rates. The 1947 and 1954 censuses of manufactures in the United States were used extensively in the industry case studies, and to some extent, by Professor Segal.

A remarkable amount of information and analysis has been put into these two volumes. The authors were successful, however, in giving us the statistical material in an interesting, well-written, and organized manner. Professor Helfgott did a

particularly effective job in describing the garment industry.

These studies should be helpful in enabling government, labor, and industry in the region to become better acquainted with the economic forces involved in policy decisions. Other areas will benefit from them in developing their own plans and studies. Those involved in analyzing the competitive position of the United States in world trade also may obtain suggestions from the methodology developed.

—Louis F. Buckley

Director, Middle Atlantic Region
Bureau of Labor Statistics

The Commonwealth Economy in Southeast Asia. By T. H. Silcock. Durham, N.C., Duke University Press, 1959. 259 pp., bibliography. $4.

To the reader who already possesses an elementary knowledge of the economies of the individual countries of Southeast Asia, this book has much to offer. It reviews in some detail the economic relationship of Malaya, Singapore, Sarawak, Brunei, and North Borneo to each other and to other parts of the British Commonwealth. It also discusses, as a topic of special concern, the probable effects of the European free trade area on Malaya's trade. The book is of general importance for the reason that much of the analysis is applicable to the underdeveloped countries in other parts of the world.

Drawing upon years of professional experience in Malaya, Singapore, and Sarawak as a professor of economics and an economist for the United Nations Economic Commission for Asia and the Far East, the author presents an analysis of the liabilities and assets of each country, the history of their development, and the impact of British colonial techniques. Then, he presents his own, often original, suggestions as to how the liabilities might be overcome and the assets used to promote economic development.

In the manpower field, he brings to light the serious problem arising out of the assumption, on the part of most colonial administrators, that it is their duty to train local personnel to replace them as independence draws near. The futility of training people in techniques of working in European type establishments (be they governmental, educational, or business), which will shortly be modified greatly to conform to local culture patterns, may be quickly appreciated. Although the author offers no pat solution to this problem, he states that in the training now given by business enterprises in techniques of accounting and business management there is—

> not enough appreciation of the need to adapt it to local methods of doing business in such a way that it can become a constructive force for growth. This appears to be a most fruitful field for sociological research, since what is required is probably not the conversion of Chinese or Thai or Indian firms into firms on the European model but rather a more sophisticated and accurate system of recording and institutionalizing of their own business firms.

The last 34 pages of the book are devoted to an annotated reading list on the economy of the Federation of Malaya and Singapore. Other useful references to primary sources are contained in the footnotes.

—Alice W. Shurcliff

Division of Foreign Labor Conditions
Bureau of Labor Statistics

Contemporary Collective Bargaining. By Harold W. Davey. Englewood Cliffs, N.J., Prentice-Hall, Inc., 1959. 388 pp., bibliographies. 2d ed. $8.65.

This book is an extensive revision of a text published in 1951, emphasizing union-management relations at the plant level and contract negotiation and administration. Written primarily from an arbitrator's point of view, it offers little or nothing on the economic subjects that often comprise a major part of introductory texts, such as supply and demand of labor, wage theory, and labor mobility. The author also avoids any discussions of the history and philosophy of the American labor movement and of internal union affairs. This volume is thus addressed to the student seeking a comprehensive and succinct synthesis of current research in labor-management relations and for this purpose it is admirably suited.

The opening chapters analyze problem areas and varieties in present-day collective bargaining and discuss the effect of the Taft-Hartley Act (prior to the 1959 amendments). This is followed by a lucid and informative discourse on contract administration, arbitration, and managerial authority. Subsequent chapters deal with wage de-

termination and structure, automation, welfare plans, and fringe benefits. The concluding parts cover the implications of centralized collective bargaining, industrial peace, and the inevitable summation in the form of a "blueprint for the future." The author has appended several of his own arbitration decisions to highlight problems (and solutions) which are likely to arise during the life of the agreement.

One of the merits of the book is that Professor Davey leaves the reader no doubt as to where he stands on the issues he discusses. He considers a strong and responsible labor movement indispensable to the functioning of a free economy; the union security controversy is described as a power struggle rather than an issue over principles; and recent decisions of the National Labor Relations Board "stack the cards too heavily in favor of the employer."

Labor economists will perhaps be surprised to find the perennial problem of management prerogatives discussed in terms of "unlimited" versus "limited" sovereignty, concepts borrowed from political theory. A cause of concern to the author is the growing trend toward centralization in labor-management relations. The greater stability which is thus achieved may be at the expense of policy participation and execution at the local level. Davey's proposed solution calls for a "judicious mixture" of centralized determination of major policy issues and local option in matters which require diversity and flexibility. At the same time, he is fully aware that such a dividing line is difficult to draw.

The book's clear and simple style, extensive bibliography, and author and subject index make it an excellent text for undergraduate courses in industrial relations.

—Harry P. Cohany

Division of Wages and Industrial Relations
Bureau of Labor Statistics

The Nature of Retirement. By Elon H. Moore. Edited by Gordon F. Strieb. New York, Macmillan Co., 1959. 217 pp., bibliography. $4.50.

To the student, teacher, or discussion leader concerned with preretirement planning or counseling, this will be a helpful text book, and to the white-collar, professional, or managerial worker concerned with his own retirement plan, an interesting source of background reading.

The late Dr. Moore, an eminent and respected sociologist, has done more than merely cover in technical and philosophical fashion the main areas of interest and concern in retirement planning. He has "leavened the loaf" with the real-life experiences of almost 1,000 persons from all walks of life who were experiencing retirement or retirement planning problems at the time the manuscript was being planned. It is regrettable that he did not have the opportunity before his untimely death to include in his sample a good cross-section of blue-collar production and service workers. This might have helped to enrich the content of the book at certain points.

However, Dr. Moore's insight, enhanced certainly by the persons he interviewed, is very helpful to the reader as he defines the nature of retirement and our changing attitudes and outlook toward it, and then explores the major aspects of preparation—solving economic problems, finding substitutes for work, developing or maintaining social relationships, finding a place to live, and knowing and using community resources and services. One could wish for a little less personal projection of the author's own preferences in his treatment of such subjects as where to live and how to live in retirement. But this is, after all, a matter of individual choice and perhaps none of us really knows what is best as a social policy in this area of need among older persons.

Dr. Gordon Strieb has done an excellent job of bringing his late colleague's materials up to date by careful footnoting, and all told, the book has a ring of currency as well as interest about it.

—Charles E. Odell

Director, Older and Retired Workers Department
United Automobile Workers

Economic Conditions and Growth

Study of Employment, Growth, and Price Levels: Recent Inflation in the United States. By Charles L. Schultze (Study Paper No. 1, 137 pp., 40 cents); *Steel and the Postwar Inflation.* By Otto Eckstein and Gary Fromm. *An Analysis of the Inflation in Machinery Prices.* By Thomas A. Wilson. (Study Papers Nos. 2 and 3, 81 pp., 25 cents). Washington, [Congressional] Joint Economic Committee, 1959. (Joint Committee Prints, 86th Cong., 1st sess.) Available from Superintendent of Documents, Washington.

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Current Labor Statistics

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E.—Work Stoppages

446 Table E–1. Work stoppages resulting from labor-management disputes

F.—Work Injuries

447 Table F–1. Injury-frequency rates for selected manufacturing industries [1]

[1] This table is included in the January, April, July, and October issues of the Review.

NOTE: The following applies, with a few exceptions, to the statistical series published in the Current Labor Statistics section: (1) The source is the U.S. Department of Labor, Bureau of Labor Statistics; (2) a description of each series may be found in Techniques of Preparing Major BLS Statistical Series, BLS Bull. 1168 (1954); and (3) the scope of coverage is the United States without Alaska and Hawaii. Exceptions are noted on the tables.

543675—60——6

A.—Employment

TABLE A–1. Estimated total labor force classified by employment status, hours worked, and sex

[In thousands]

Employment status	Estimated number of persons 14 years of age and over [1]														
	1960		1959											Annual average	
	Feb.	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1958	1957[3]
Total, both sexes															
Total labor force	70,970	70,689	71,808	71,839	72,629	72,109	73,204	73,875	73,862	71,955	71,210	70,768	70,062	71,284	70,746
Civilian labor force	68,449	68,168	69,276	69,310	70,103	69,577	70,667	71,338	71,324	69,405	68,639	68,189	67,471	68,647	67,946
Unemployment	3,931	4,149	3,577	3,670	3,272	3,230	3,426	3,744	3,982	3,389	3,627	4,362	4,749	4,681	2,936
Unemployment rate, seasonally adjusted [4]	4.8	5.2	5.2	5.6	6.0	5.6	5.5	5.1	4.9	4.9	5.3	5.8	6.1	6.8	4.3
Unemployed 4 weeks or less	1,476	1,909	1,683	1,846	1,607	1,539	1,567	1,773	2,274	1,408	1,382	1,365	1,600	1,833	1,485
Unemployed 5–10 weeks	1,095	930	833	764	651	662	786	902	930	601	595	823	1,176	959	650
Unemployed 11–14 weeks	396	400	250	276	288	293	290	251	250	263	283	629	509	438	340
Unemployed 15–26 weeks	533	441	381	356	333	340	290	303	387	515	675	767	727	785	331
Unemployed over 26 weeks	431	469	430	428	393	396	493	515	540	605	723	777	737	667	239
Employment	64,520	64,020	65,699	65,640	66,831	66,347	67,241	67,594	67,342	66,016	65,012	63,828	62,722	63,966	65,011
Nonagricultural	59,901	59,409	60,888	60,040	60,707	60,105	60,884	60,769	60,111	59,608	59,163	58,625	58,030	58,122	58,789
Worked 35 hours or more	45,357	47,115	48,455	45,877	45,800	31,869	45,797	44,863	47,627	47,935	47,287	46,292	44,968	44,873	46,238
Worked 15–34 hours	8,605	6,867	7,227	10,991	9,049	21,859	6,066	6,333	6,257	6,431	6,615	6,915	7,745	7,324	6,953
Worked 1–14 hours	3,553	3,356	3,496	3,254	3,369	2,929	2,409	2,683	2,945	3,349	3,420	3,496	3,424	3,047	2,777
With a job but not at work [5]	2,386	2,070	1,707	1,920	2,490	3,450	6,609	6,890	3,283	1,891	1,839	1,920	1,894	2,876	2,821
Agricultural	4,619	4,611	4,811	5,601	6,124	6,242	6,357	6,825	7,231	6,408	5,848	5,203	4,692	5,844	6,222
Worked 35 hours or more	2,597	2,622	2,978	3,774	3,972	4,282	4,540	4,730	4,923	4,489	3,858	3,226	2,677	3,827	4,197
Worked 15–34 hours	1,121	1,178	1,173	1,307	1,531	1,393	1,230	1,471	1,700	1,455	1,387	1,273	1,217	1,361	1,413
Worked 1–14 hours	557	536	474	373	468	441	387	428	455	348	425	523	479	457	416
With a job but not at work [5]	344	273	186	144	154	125	202	195	152	117	179	181	318	199	196
Males															
Total labor force	48,437	48,412	48,778	48,729	49,045	49,110	50,230	50,684	50,385	48,945	48,653	48,360	48,073	48,802	48,649
Civilian labor force	45,999	45,923	46,278	46,232	46,551	46,610	47,725	48,179	47,879	46,427	46,114	45,813	45,514	46,197	45,882
Unemployment	2,672	2,821	2,405	2,370	2,007	2,022	2,138	2,315	2,403	2,095	2,317	2,971	3,359	3,155	1,893
Employment	43,328	43,103	43,873	43,863	44,544	44,588	45,587	45,863	45,476	44,342	43,798	42,842	42,156	43,042	43,989
Nonagricultural	39,319	39,108	39,744	39,337	39,762	39,764	40,537	40,493	39,942	39,291	38,898	38,338	37,991	38,240	38,952
Worked 35 hours or more	31,851	32,973	33,645	30,730	31,987	23,179	32,653	31,966	34,003	33,630	33,049	32,307	31,433	31,390	32,546
Worked 15–34 hours	4,361	3,341	3,446	5,954	4,594	13,046	2,933	3,221	2,912	2,953	3,157	3,330	3,882	3,736	3,461
Worked 1–14 hours	1,547	1,440	1,468	1,363	1,437	1,244	1,043	1,236	1,292	1,540	1,551	1,504	1,456	1,329	1,197
With a job but not at work [5]	1,557	1,354	1,180	1,291	1,743	2,296	3,905	4,071	1,735	1,167	1,139	1,194	1,220	1,784	1,748
Agricultural	4,009	3,995	4,128	4,526	4,782	4,824	5,050	5,369	5,535	5,051	4,900	4,505	4,165	4,802	5,037
Worked 35 hours or more	2,397	2,409	2,729	3,306	3,481	3,681	3,932	4,093	4,255	3,933	3,545	3,001	2,509	3,413	3,716
Worked 15–34 hours	818	870	845	800	861	750	647	792	860	760	868	906	928	857	842
Worked 1–14 hours	482	462	380	281	298	281	291	312	296	264	333	428	425	353	309
With a job but not at work [5]	315	253	177	137	142	111	182	174	124	95	155	172	303	179	171
Females															
Total labor force	22,482	22,277	23,030	23,110	23,584	22,999	22,974	23,191	23,477	23,010	22,557	22,408	21,989	22,482	22,097
Civilian labor force	22,450	22,245	22,998	23,078	23,552	22,967	22,942	23,159	23,445	22,978	22,525	22,376	21,957	22,451	22,064
Unemployment	1,258	1,328	1,172	1,301	1,265	1,209	1,288	1,429	1,579	1,304	1,310	1,391	1,391	1,526	1,043
Employment	21,192	20,917	21,826	21,777	22,287	21,759	21,654	21,731	21,866	21,674	21,214	20,985	20,566	20,924	21,021
Nonagricultural	20,582	20,301	21,144	20,703	20,945	20,341	20,347	20,276	20,170	20,317	20,265	20,287	20,039	19,882	19,837
Worked 35 hours or more	13,505	14,144	14,809	13,145	13,810	8,689	13,145	12,897	13,622	14,305	14,239	13,985	13,534	13,483	13,692
Worked 15–34 hours	4,244	3,525	3,781	5,038	4,454	8,812	3,133	3,114	3,347	3,478	3,458	3,586	3,863	3,589	3,491
Worked 1–14 hours	2,006	1,916	2,028	1,891	1,933	1,684	1,365	1,447	1,654	1,809	1,869	1,992	1,968	1,718	1,580
With a job but not at work [5]	829	716	527	628	747	1,154	2,704	2,819	1,548	723	699	725	673	1,093	1,073
Agricultural	610	615	683	1,074	1,343	1,418	1,307	1,455	1,696	1,358	949	698	527	1,042	1,184
Worked 35 hours or more	198	213	249	467	491	600	608	640	668	556	314	225	168	414	482
Worked 15–34 hours	305	308	330	507	670	641	581	680	842	696	519	367	290	504	571
Worked 1–14 hours	75	74	94	92	170	161	95	116	160	84	92	95	54	104	107
With a job but not at work [5]	29	20	9	8	11	14	21	21	29	22	25	10	15	20	25

[1] Estimates are based on information obtained from a sample of households and are subject to sampling variability. Data relate to the calendar week ending nearest the 15th day of the month. The employed total includes all wage and salary workers, self-employed persons, and unpaid workers in family-operated enterprises. Persons in institutions are not included.

Because of rounding, sums of individual items do not necessarily equal totals.

[2] Data for January 1960 include Alaska and Hawaii and are therefore not directly comparable with earlier data. The levels of the civilian labor force were increased by 282,000, the employed by 266,000, and nonagricultural employment by 229,000. The estimates for agricultural employment and unemployment were affected so slightly that these series can be regarded as entirely comparable with pre-1960 data.

[3] Beginning with January 1957, 2 groups numbering between 200,000 and 300,000 which were formerly classified as employed (under "with a job but not at work") were assigned to different classifications, mostly to the unemployed. For a full explanation, see Monthly Report on the Labor Force, February 1957 (Current Population Reports, Labor Force, Series P–57, No. 176).

[4] Unemployment as a percent of labor force.

[5] Includes persons who had a job or business but who did not work during the survey week because of illness, bad weather, vacation, or labor dispute. Prior to January 1957, also included were persons on layoff with definite instructions to return to work within 30 days of layoff and persons who had new jobs to which they were scheduled to report within 30 days. Most of the persons in these groups have, since that time, been classified as unemployed.

NOTE: For a description of these series, see Explanatory Notes (in Employment and Earnings, U.S. Department of Labor, Bureau of Labor Statistics, current issues).

TABLE A–2. Employees in nonagricultural establishments, by industry [1]

[In thousands]

Industry	1960		1959											Annual average	
	Feb.[2]	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1958	1957
Total employees	52,012	52,078	53,736	52,793	52,569	52,648	52,066	52,343	52,580	51,982	51,430	50,878	50,315	50,543	52,162
Mining	661	656	668	660	621	620	639	710	713	701	694	688	693	721	809
Metal	86.7	73.1	69.5	67.2	46.5	46.7	62.0	97.4	97.7	96.5	95.7	93.5	93.5	93.1	111.2
Iron	.....	32.9	32.3	30.0	9.7	9.7	10.6	35.2	35.4	34.9	33.9	32.5	31.1	30.8	38.9
Copper	.....	11.2	8.1	8.0	8.7	8.9	20.1	31.0	31.1	30.7	30.5	29.3	30.8	28.6	32.6
Lead and zinc	.....	12.2	12.1	12.0	11.4	11.5	12.9	12.7	12.6	12.3	12.3	12.5	12.5	12.9	16.7
Anthracite	.....	15.5	15.7	15.9	16.0	15.6	15.4	17.1	15.3	15.1	15.3	16.4	18.1	20.3	23.4
Bituminous coal	168.9	172.9	173.7	164.3	145.4	136.3	135.8	171.3	177.9	176.4	176.2	179.6	188.2	195.2	230.0
Crude-petroleum and natural-gas production	.....	289.6	297.0	297.9	298.6	306.0	309.7	310.7	308.7	301.1	297.0	293.9	292.2	302.6	326.2
Petroleum and natural-gas production (except contract services)	.....	177.2	177.9	177.7	178.4	181.8	183.7	184.0	182.8	179.5	179.8	179.7	180.2	188.0	193.8
Nonmetallic mining and quarrying	102.9	105.2	111.6	114.2	114.2	115.2	115.7	113.8	113.2	112.3	109.6	104.3	101.4	100.3	113.3
Contract construction	2,377	2,447	2,699	2,856	2,961	3,043	3,107	3,035	2,986	2,834	2,662	2,417	2,256	2,648	2,808
Nonbuilding construction	.....	435	518	587	634	660	688	687	685	650	571	472	419	599	595
Highway and street construction	.....	169.2	220.5	270.8	309.5	329.5	347.2	343.0	335.0	310.5	254.9	194.0	164.3	250.0	250.1
Other nonbuilding construction	.....	265.6	297.0	316.6	324.0	330.8	340.4	344.1	350.0	339.8	315.8	277.6	254.6	313.2	335.6
Building construction	.....	2,012	2,181	2,269	2,327	2,383	2,419	2,348	2,301	2,184	2,091	1,945	1,837	2,079	2,222
General contractors	.....	659.6	725.5	764.8	801.6	827.7	849.5	836.7	824.0	776.5	742.2	671.8	623.5	780.6	862.3
Special-trade contractors	.....	1,352.1	1,455.2	1,504.6	1,524.9	1,555.2	1,569.8	1,511.3	1,477.2	1,407.6	1,348.5	1,273.2	1,213.2	1,328.6	1,359.7
Plumbing and heating	.....	296.7	308.6	314.5	322.6	329.1	330.8	323.5	314.0	305.3	301.6	292.6	287.6	303.6	321.7
Painting and decorating	.....	182.6	204.9	222.0	228.4	239.9	246.9	239.9	217.7	199.4	174.4	154.0	141.5	169.6	164.2
Electrical work	.....	171.4	176.3	180.1	181.1	185.1	184.2	179.1	176.5	169.6	161.6	160.4	165.6	173.2	188.9
Other special-trade contractors	.....	701.4	765.4	788.0	792.8	801.1	807.9	768.8	769.0	733.3	710.9	666.2	618.5	682.2	677.9
Manufacturing	16,499	16,467	16,454	16,280	16,197	16,367	16,169	16,410	16,455	16,187	16,034	15,969	15,771	15,468	16,782
Durable goods	9,671	9,645	9,577	9,313	9,168	9,225	9,058	9,523	9,581	9,443	9,314	9,217	9,060	8,743	9,821
Nondurable goods	6,828	6,822	6,907	6,967	7,029	7,142	7,111	6,887	6,874	6,744	6,720	6,752	6,711	6,725	6,961
Durable goods															
Ordnance and accessories	148.3	149.1	149.5	147.0	145.3	145.2	142.3	142.4	139.7	138.3	137.7	138.1	137.2	126.7	129.3
Lumber and wood products (except furniture)	623.9	631.4	651.6	667.2	679.9	687.9	696.0	694.4	691.8	660.5	634.5	617.5	601.8	621.7	654.6
Logging camps and contractors	.....	94.9	102.2	106.1	107.7	108.4	114.6	115.3	112.1	96.1	83.6	81.8	75.1	86.2	87.1
Sawmills and planing mills	.....	307.0	315.5	323.6	329.0	332.9	333.2	330.4	330.9	321.9	313.7	304.5	300.1	311.0	331.6
Millwork, plywood, and prefabricated structural wood products	.....	131.1	134.9	138.4	142.6	145.5	147.4	147.0	145.9	140.9	136.1	131.5	128.5	127.1	128.7
Wooden containers	.....	42.1	43.0	42.5	43.5	43.7	43.2	44.8	45.6	45.1	44.4	44.0	43.8	44.7	49.7
Miscellaneous wood products	.....	56.3	56.0	56.6	57.1	57.4	57.6	56.9	57.3	56.5	56.7	55.4	54.3	52.7	57.5
Furniture and fixtures	391.7	391.5	391.2	390.6	391.9	392.0	386.3	382.2	384.1	380.2	379.0	377.9	376.7	387.9	375.6
Household furniture	.....	283.4	285.1	283.3	285.9	284.6	280.1	276.6	277.0	276.3	276.4	276.0	275.3	287.1	265.9
Office, public-building[3] and professional furniture	.....	47.3	46.9	47.0	47.7	48.1	48.0	45.8	46.2	44.9	44.9	44.9	44.4	43.8	48.0
Partitions, shelving, lockers, and fixtures	.....	36.0	35.8	35.6	33.7	33.8	33.4	35.5	35.6	34.3	33.6	33.1	33.7	34.5	37.9
Screens, blinds, and miscellaneous furniture and fixtures	.....	24.8	23.4	22.7	24.6	25.5	24.8	24.3	25.3	24.7	24.1	23.9	23.3	22.5	23.8
Stone, clay, and glass products	550.7	548.9	557.3	561.6	561.6	572.8	571.5	565.7	566.1	553.7	543.6	531.2	509.7	514.5	552.5
Flat glass	.....	36.4	36.4	36.3	36.7	34.7	34.1	32.7	33.1	33.1	33.6	33.6	24.1	27.3	34.7
Glass and glassware, pressed or blown	.....	101.3	102.1	103.5	99.2	104.5	102.9	100.9	103.1	100.9	98.9	97.1	95.2	95.5	98.8
Glass products made of purchased glass	.....	17.6	17.8	18.4	18.6	18.6	18.1	17.9	17.8	17.7	17.8	18.2	17.6	16.3	17.9
Cement, hydraulic	.....	40.0	41.4	41.8	41.1	43.2	43.6	43.5	43.2	42.6	42.0	40.6	38.5	42.0	42.0
Structural clay products	.....	73.6	76.0	77.4	77.6	77.6	78.7	78.4	78.3	75.9	74.7	71.2	68.9	73.1	80.4
Pottery and related products	.....	49.1	48.8	49.8	50.1	50.2	49.7	49.4	49.4	47.2	46.0	45.8	45.2	43.9	49.8
Concrete, gypsum, and plaster products	.....	112.6	116.6	118.3	121.8	125.4	126.2	123.5	122.5	119.1	115.2	110.2	107.8	108.8	112.0
Cut-stone and stone products	.....	17.3	17.7	18.0	18.2	18.4	18.5	18.4	18.2	18.1	17.8	17.8	17.8	18.3	19.0
Miscellaneous nonmetallic mineral products	.....	101.0	100.5	98.1	98.3	100.2	99.7	101.0	100.5	99.1	97.6	96.7	94.6	89.3	97.9
Primary metal industries	1,283.4	1,273.2	1,264.2	1,196.2	823.9	834.1	856.2	1,268.1	1,291.4	1,272.8	1,256.0	1,231.4	1,194.9	1,104.4	1,309.7
Blast furnaces, steel works, and rolling mills	.....	638.9	634.1	597.3	222.8	229.0	242.2	630.8	651.8	643.4	633.5	618.4	601.7	536.7	642.7
Iron and steel foundries	.....	230.2	230.3	215.8	226.9	228.3	226.7	230.1	231.4	226.5	225.3	220.0	215.0	197.4	233.8
Primary smelting and refining of nonferrous metals	.....	52.0	49.7	44.3	44.9	45.2	55.7	56.9	55.3	54.9	54.1	54.7	54.9	56.2	68.1
Secondary smelting and refining of nonferrous metals	.....	12.7	12.4	12.6	11.9	12.0	12.8	12.5	12.5	12.3	12.2	12.1	12.0	11.5	13.2
Rolling, drawing, and alloying of nonferrous metals	.....	116.0	116.6	116.2	117.0	117.6	117.1	119.4	119.6	117.9	115.2	112.6	110.2	108.5	115.3
Nonferrous foundries	.....	67.6	67.0	66.1	67.6	66.1	64.6	64.1	64.8	64.4	64.1	63.6	62.9	57.7	71.4
Miscellaneous primary metal industries	.....	155.8	154.1	144.5	132.8	135.9	137.1	152.3	155.0	153.4	151.6	150.0	148.2	139.4	165.2

See footnotes at end of table.

TABLE A-2. Employees in nonagricultural establishments, by industry [1]—Continued

[In thousands]

Industry	1960		1959											Annual average	
	Feb.[2]	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1958	1957
Manufacturing—Continued															
Durable goods—Continued															
Fabricated metal products (except ordnance, machinery, and transportation equipment)	1,101.5	1,096.6	1,082.0	1,042.1	1,051.6	1,082.6	1,055.9	1,084.1	1,102.0	1,087.2	1,074.1	1,063.3	1,049.2	1,029.9	1,132.3
Tin cans and other tinware		57.8	56.8	55.9	56.7	65.4	64.7	62.8	63.1	61.0	59.0	57.2	56.8	58.2	59.1
Cutlery, handtools, and hardware		139.3	138.1	123.7	130.1	138.5	134.7	132.4	136.4	135.6	134.5	135.6	135.2	128.3	144.9
Heating apparatus (except electric) and plumbers' supplies		116.7	114.2	116.5	120.6	121.7	120.6	116.6	118.7	116.9	116.0	115.6	113.1	109.3	110.0
Fabricated structural metal products		282.8	282.1	275.5	263.2	273.7	278.8	303.1	301.6	296.0	291.5	285.8	283.2	303.0	328.2
Metal stamping, coating, and engraving		245.3	239.3	223.3	237.2	239.2	219.8	228.0	233.5	231.9	229.2	228.7	224.1	210.7	243.3
Lighting fixtures		50.8	49.9	49.8	51.4	51.3	49.1	47.6	48.8	49.1	48.9	48.5	48.0	44.7	51.4
Fabricated wire products		59.6	59.2	57.2	54.4	54.8	52.8	56.0	57.7	57.4	57.5	57.3	56.7	52.4	59.0
Miscellaneous fabricated metal products		144.3	142.4	140.2	138.0	138.0	135.4	137.6	142.2	139.3	137.5	134.6	132.1	123.3	137.4
Machinery (except electrical)	1,687.6	1,675.4	1,660.3	1,625.8	1,636.5	1,655.3	1,624.6	1,633.9	1,644.9	1,622.7	1,593.2	1,576.7	1,550.4	1,501.2	1,737.9
Engines and turbines		108.7	107.3	104.6	105.7	106.4	103.6	104.1	105.1	104.2	100.4	100.4	99.2	93.1	96.4
Agricultural machinery and tractors		157.9	154.1	141.0	151.4	167.5	158.9	171.5	173.0	171.3	161.3	158.8	153.2	136.9	148.4
Construction and mining machinery		131.1	129.2	125.2	126.3	132.6	132.1	135.5	136.2	133.7	129.7	128.0	125.6	122.0	153.1
Metalworking machinery		256.9	255.4	251.6	247.9	246.5	239.9	239.3	239.4	235.9	233.6	230.0	224.5	223.7	287.6
Special-industry machinery (except metalworking machinery)		173.4	172.3	171.8	169.8	170.3	166.8	165.9	166.2	163.0	161.7	160.8	158.9	159.6	181.0
General industrial machinery		229.4	229.3	228.9	229.5	229.4	230.3	226.2	225.5	221.2	218.1	214.9	213.4	220.1	254.8
Office and store machines and devices		137.4	138.1	136.9	136.0	134.5	132.4	129.8	132.6	131.7	131.4	130.3	129.5	124.9	137.7
Service-industry and household machines		194.7	189.6	184.4	186.3	185.7	185.7	186.3	187.2	186.2	184.5	184.3	181.7	168.9	189.9
Miscellaneous machinery parts		285.9	285.0	281.4	283.6	282.4	274.9	275.3	279.7	275.5	272.5	269.2	264.4	252.0	289.0
Electrical machinery	1,317.7	1,320.9	1,317.0	1,301.5	1,311.2	1,301.8	1,260.6	1,241.6	1,232.6	1,207.4	1,189.6	1,183.7	1,177.9	1,118.8	1,223.3
Electrical generating, transmission, distribution, and industrial apparatus		421.7	419.5	407.4	413.1	416.9	411.4	407.0	405.6	398.2	390.1	386.1	383.4	373.5	420.2
Electrical appliances		39.2	39.5	39.5	40.3	39.7	37.9	36.9	37.0	37.3	36.6	36.3	35.4	34.6	40.9
Insulated wire and cable		29.4	29.3	28.8	28.7	28.0	27.7	26.9	27.9	27.9	28.1	27.9	28.0	25.4	27.2
Electrical equipment for vehicles		76.4	74.4	70.7	73.5	72.5	61.3	68.6	69.8	69.7	70.5	70.1	70.2	61.8	75.2
Electric lamps		29.6	29.5	29.5	29.3	28.6	27.7	27.5	27.4	26.9	26.6	26.2	26.1	26.4	30.2
Communication equipment		676.1	674.7	674.9	675.2	664.4	645.3	625.8	615.8	599.8	590.2	589.6	586.8	551.4	579.8
Miscellaneous electrical products		48.5	50.1	50.7	51.1	51.7	49.3	48.9	49.1	47.6	47.5	47.5	48.0	45.7	49.8
Transportation equipment	1,731.2	1,727.6	1,655.9	1,511.1	1,692.4	1,685.4	1,619.8	1,602.8	1,703.7	1,710.4	1,705.9	1,702.1	1,679.4	1,592.8	1,874.1
Motor vehicles and equipment		825.0	756.9	602.2	784.2	758.7	679.1	744.3	754.2	754.7	747.4	744.6	721.3	630.8	798.3
Aircraft and parts		693.2	700.9	709.7	717.4	730.5	732.4	735.6	735.3	741.4	745.1	753.0	757.2	757.6	861.7
Aircraft		399.4	404.2	412.3	418.4	429.2	433.0	433.4	434.0	442.0	448.4	452.0	455.8	457.2	522.3
Aircraft engines and parts		143.1	144.2	144.9	145.2	145.8	144.0	146.8	146.6	146.4	146.9	147.9	148.8	162.6	170.1
Aircraft propellers and parts		13.7	13.6	13.6	13.9	14.1	14.0	14.3	14.4	14.5	14.8	15.2	15.1	18.3	20.5
Other aircraft parts and equipment		137.0	138.9	138.9	139.9	141.4	141.4	141.1	140.3	138.5	138.0	137.9	137.5	129.5	139.8
Ship and boat building and repairing		147.8	140.7	141.9	131.1	131.3	140.7	144.6	148.0	150.0	149.2	146.3	143.3	144.6	148.8
Shipbuilding and repairing		124.1	117.5	119.5	109.7	111.1	121.2	123.3	124.2	125.8	125.5	124.4	122.1	125.3	126.9
Boatbuilding and repairing		23.7	23.2	22.4	21.4	20.2	19.5	21.3	23.8	24.2	23.7	21.9	21.2	19.2	21.9
Railroad equipment		52.7	47.7	46.9	48.8	53.9	56.9	57.7	55.8	54.2	51.3	48.5	48.3	50.9	71.6
Other transportation equipment		8.9	9.7	10.4	10.9	11.0	10.7	10.6	10.4	10.1	9.9	9.7	9.3	9.0	9.7
Instruments and related products	352.6	351.5	354.0	352.5	351.8	349.8	343.4	339.2	339.2	332.5	329.6	328.7	325.2	315.2	337.9
Laboratory, scientific, and engineering instruments		66.9	68.2	67.8	67.2	66.4	65.7	65.3	63.9	63.0	62.1	61.2	60.4	58.1	63.1
Mechanical measuring and controlling instruments		97.4	97.3	96.4	97.4	96.7	94.9	94.3	94.6	90.5	89.6	90.3	88.5	83.9	90.9
Optical instruments and lenses		17.4	16.9	17.1	16.9	16.4	15.8	15.3	15.0	15.1	15.3	15.3	15.1	14.0	13.9
Surgical, medical, and dental instruments		44.6	44.7	44.1	43.7	43.6	42.8	42.0	43.5	42.9	42.7	42.4	42.3	41.5	42.0
Ophthalmic goods		28.2	28.1	28.0	27.6	27.5	26.4	25.6	25.7	25.5	25.2	24.9	24.6	23.7	25.2
Photographic apparatus		66.2	67.1	66.8	65.9	66.1	66.0	65.7	65.0	64.4	64.2	63.9	63.8	65.6	70.0
Watches and clocks		30.8	31.7	32.3	33.1	33.1	31.8	31.0	31.5	31.1	30.5	30.7	30.5	28.4	30.8
Miscellaneous manufacturing industries	482.4	478.5	494.1	516.9	522.3	517.7	501.2	480.7	485.2	476.8	471.0	466.2	457.8	459.9	490.0
Jewelry, silverware, and plated ware		46.4	47.7	48.0	48.0	46.8	45.6	44.3	45.2	45.1	44.6	45.0	45.0	44.4	46.3
Musical instruments and parts		19.5	19.9	19.8	19.8	19.1	18.4	15.5	15.7	17.6	17.7	17.7	17.6	16.4	18.2
Toys and sporting goods		72.2	79.4	95.2	100.3	99.2	94.0	86.1	87.5	82.8	79.0	74.4	70.8	81.7	90.6
Pens, pencils, other office supplies		30.4	31.0	32.1	32.3	32.1	31.6	31.1	30.8	30.4	30.4	30.0	29.1	30.7	32.0
Costume jewelry, buttons, notions		60.8	61.3	62.2	63.3	63.0	62.5	59.4	59.5	58.4	58.0	59.7	60.0	58.2	61.4
Fabricated plastics products		95.6	96.2	97.1	97.1	96.3	93.6	91.5	92.1	91.4	91.0	89.8	88.2	84.0	91.5
Other manufacturing industries		153.6	158.6	162.5	161.5	161.2	155.5	152.8	154.4	151.1	150.3	149.6	147.1	144.5	150.0
Nondurable goods															
Food and kindred products	1,379.8	1,397.3	1,434.5	1,478.2	1,326.9	1,614.8	1,630.9	1,516.0	1,479.2	1,417.3	1,399.9	1,383.3	1,377.5	1,476.4	1,509.8
Meat products		301.6	305.7	305.0	294.6	291.1	311.0	305.3	305.8	302.9	296.5	300.2	300.7	307.0	326.2
Dairy products		89.4	90.5	91.6	95.2	100.9	103.3	104.3	104.4	99.7	95.7	93.3	92.1	99.8	104.9
Canning and preserving		171.2	182.9	211.7	260.1	352.0	350.3	253.7	214.2	180.6	181.2	166.3	161.7	220.4	220.8
Grain-mill products		108.5	109.9	109.8	113.0	115.4	115.2	114.9	115.6	113.5	111.7	113.3	113.3	113.8	114.3
Bakery products		286.4	287.9	290.0	289.1	289.2	290.0	286.8	284.6	281.8	281.4	280.8	280.5	284.3	287.2
Sugar		35.1	41.3	45.4	43.1	29.2	27.7	26.2	25.9	25.0	25.7	25.7	26.6	31.4	31.3
Confectionery and related products		73.5	78.0	78.8	79.1	77.7	73.6	68.3	71.0	68.6	69.7	70.4	73.0	75.4	77.5
Beverages		190.8	205.5	210.5	215.2	220.5	220.3	217.9	216.4	208.8	202.6	199.6	196.1	207.9	209.9
Miscellaneous food products		131.8	132.8	135.4	137.5	138.8	139.5	137.6	141.3	136.4	135.4	133.7	133.5	137.3	137.7

See footnotes at end of table.

TABLE A–2. Employees in nonagricultural establishments, by industry [1]—Continued

[In thousands]

Industry	1960		1959											Annual average	
	Feb.[2]	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1958	1957
Manufacturing—Continued															
Nondurable goods—Continued															
Tobacco manufactures	88.1	87.8	91.2	92.5	103.1	108.8	99.9	77.3	79.9	79.2	79.9	82.0	86.4	90.4	94.1
Cigarettes	-------	37.6	37.7	38.0	37.7	37.7	37.9	35.7	37.5	37.1	37.1	37.4	37.3	36.4	34.6
Cigars	-------	25.3	27.1	27.4	27.4	27.1	26.8	25.7	27.0	27.1	27.2	27.2	27.4	29.1	32.6
Tobacco and snuff	-------	6.4	6.4	6.4	6.4	6.7	6.8	6.8	6.9	6.7	6.6	6.5	6.4	6.5	6.6
Tobacco stemming and redrying	-------	18.5	20.0	20.7	31.6	37.3	28.4	9.1	8.5	8.3	9.0	10.9	15.3	18.4	20.3
Textile-mill products	950.9	951.5	960.3	969.3	978.5	983.1	980.1	964.7	975.1	965.4	960.3	957.7	950.7	941.5	1,004.8
Scouring and combing plants	-------	5.6	5.4	5.3	5.6	5.7	5.8	5.8	5.7	5.6	5.5	5.3	5.3	5.2	5.5
Yarn and thread mills	-------	107.2	108.2	108.7	110.3	111.7	111.7	111.2	112.0	110.5	109.8	109.2	108.2	108.2	116.0
Broad-woven fabric mills	-------	396.0	398.1	398.9	399.9	400.4	399.8	395.7	399.1	397.8	397.1	398.7	398.0	399.9	428.7
Narrow fabrics and small wares	-------	29.7	29.4	29.3	29.5	29.9	29.8	29.8	30.2	29.7	29.6	29.3	29.1	27.5	29.1
Knitting mills	-------	209.4	216.2	224.5	228.4	230.2	230.6	221.3	224.9	220.2	216.0	212.8	209.3	207.0	214.5
Dyeing and finishing textiles	-------	89.5	89.3	89.3	89.4	89.5	89.0	88.4	89.6	88.4	88.2	87.7	86.9	84.9	88.4
Carpets, rugs, other floor coverings	-------	46.6	46.2	46.2	46.7	46.5	45.6	45.6	45.7	46.5	47.3	48.0	47.5	44.8	51.5
Hats (except cloth and millinery)	-------	10.3	10.4	10.2	9.6	10.2	10.3	9.8	10.2	10.1	9.8	10.0	10.2	10.1	10.6
Miscellaneous textile goods	-------	57.2	57.1	56.9	59.1	59.0	57.5	57.1	57.7	56.6	57.0	56.7	56.2	53.9	60.5
Apparel and other finished textile products	1,236.5	1,218.8	1,232.9	1,239.9	1,232.3	1,239.1	1,234.7	1,178.6	1,200.2	1,185.6	1,183.7	1,214.2	1,207.3	1,156.3	1,198.6
Men's and boys' suits and coats	-------	113.6	114.3	114.4	113.5	114.0	113.5	104.6	113.3	110.6	109.2	110.6	109.7	107.3	117.6
Men's and boys' furnishings and work clothing	-------	346.2	349.1	352.7	351.2	351.4	348.7	339.0	340.5	333.0	328.9	327.5	322.3	311.3	316.5
Women's outerwear	-------	345.7	349.8	348.0	336.0	343.6	348.8	330.5	336.7	338.9	338.2	359.4	359.6	330.7	352.1
Women's, children's undergarments	-------	119.9	121.5	124.0	124.0	122.6	120.6	112.7	116.8	116.1	117.7	118.1	117.2	114.1	119.6
Millinery	-------	18.5	18.3	17.0	18.6	18.7	19.6	18.6	13.7	14.0	17.0	22.8	23.5	17.9	18.7
Children's outerwear	-------	73.6	72.3	72.6	72.4	74.4	76.4	74.5	76.8	73.7	71.2	75.1	77.8	73.6	74.0
Fur goods	-------	7.0	8.6	9.3	9.8	9.5	8.4	10.0	9.9	9.3	8.7	9.0	8.7	10.7	10.4
Miscellaneous apparel and accessories	-------	57.8	60.9	62.7	64.2	64.2	62.9	57.7	60.7	58.5	58.5	58.7	58.0	56.7	59.2
Other fabricated textile products	-------	136.5	138.1	139.2	142.6	140.7	135.8	131.0	131.8	131.5	134.3	133.0	130.5	125.0	130.5
Paper and allied products	558.0	558.9	564.1	564.4	566.2	571.8	566.2	561.3	565.0	556.2	553.1	550.6	549.6	547.1	566.3
Pulp, paper, and paperboard mills	-------	272.7	274.0	273.3	273.9	278.2	277.7	276.9	277.9	272.6	270.9	269.3	270.1	269.4	277.4
Paperboard containers and boxes	-------	153.4	156.2	157.7	158.0	158.0	154.6	151.7	153.8	151.1	150.4	150.1	149.7	149.6	155.3
Other paper and allied products	-------	132.8	133.9	133.4	134.3	135.6	133.9	132.7	133.3	132.5	131.8	131.2	129.8	128.1	133.6
Printing, publishing, and allied industries	879.8	878.0	887.5	886.2	886.0	882.0	871.0	864.8	862.8	859.1	858.6	857.8	853.2	852.2	887.9
Newspapers	-------	325.3	329.6	326.6	327.6	326.3	324.7	323.6	322.0	320.4	319.0	317.9	317.1	316.4	315.0
Periodicals	-------	64.2	64.5	64.7	65.0	63.7	61.7	60.9	60.6	60.9	61.5	62.0	61.8	61.5	61.7
Books	-------	60.3	60.1	59.7	59.6	59.5	58.9	57.1	57.1	57.2	57.5	56.7	56.4	55.0	55.5
Commercial printing	-------	229.4	230.0	228.8	228.0	227.3	223.2	222.9	222.6	220.4	221.7	222.5	220.3	220.7	223.9
Lithographing	-------	66.1	66.9	67.9	67.5	67.3	66.2	65.6	66.0	66.2	66.1	65.9	65.3	65.7	66.7
Greeting cards	-------	18.3	21.6	23.0	22.3	22.1	21.3	20.9	20.8	20.0	18.9	19.0	19.7	20.0	19.5
Bookbinding and related industries	-------	46.5	46.8	46.9	47.6	47.7	47.2	45.8	46.0	46.1	46.0	45.3	44.6	44.5	46.1
Miscellaneous publishing and printing services	-------	67.9	68.0	68.6	68.4	68.1	67.8	68.0	67.7	67.9	67.9	68.5	68.0	68.4	69.5
Chemicals and allied products	863.4	859.6	861.9	862.1	861.1	860.8	854.2	847.8	843.2	846.4	846.4	837.7	827.9	820.9	844.8
Industrial inorganic chemicals	-------	104.1	103.9	104.0	103.6	104.2	104.1	103.6	102.2	101.6	101.4	101.1	100.7	102.2	108.2
Industrial organic chemicals	-------	333.5	332.9	331.7	330.8	332.1	332.8	330.2	326.7	322.2	319.9	317.7	314.9	310.6	323.6
Drugs and medicines	-------	105.7	105.3	104.9	104.4	104.9	104.9	104.8	103.2	101.4	103.0	104.0	103.6	102.9	100.0
Soap, cleaning and polishing preparations	-------	51.7	51.7	51.4	51.5	51.9	51.6	51.0	50.9	50.6	50.7	50.4	50.3	49.3	50.0
Paints, pigments, and fillers	-------	75.9	76.4	76.4	77.1	75.7	76.6	76.2	75.9	75.7	74.8	74.1	73.7	73.0	78.4
Gum and wood chemicals	-------	7.8	7.8	7.7	7.8	7.8	7.7	7.8	7.5	7.7	7.6	7.6	7.5	7.8	8.5
Fertilizers	-------	36.1	35.0	34.1	34.8	36.0	32.4	31.6	34.1	45.6	46.4	41.9	36.7	35.6	35.6
Vegetable and animal oils and fats	-------	40.5	42.7	43.7	43.9	41.7	38.0	37.3	37.6	37.7	38.8	39.2	39.9	38.5	40.5
Miscellaneous chemicals	-------	104.3	106.2	108.2	107.2	107.5	106.1	105.3	105.1	103.9	103.2	101.7	100.6	101.0	102.8
Products of petroleum and coal	230.7	231.3	232.2	231.7	229.7	231.7	229.9	237.5	238.3	237.2	236.6	236.4	227.2	238.2	246.5
Petroleum refining	-------	183.4	184.2	182.9	184.0	185.4	183.2	189.3	190.2	189.5	188.9	189.0	181.5	192.1	196.1
Coke, other petroleum and coal products	-------	47.9	48.0	48.8	45.7	46.3	46.7	48.2	48.1	47.7	47.7	47.4	45.7	46.1	50.4
Rubber products	269.0	268.4	269.5	270.1	273.2	273.5	264.7	264.0	255.8	231.9	237.0	260.8	258.4	244.6	265.2
Tires and inner tubes	-------	105.0	105.5	106.1	107.0	108.0	103.4	106.7	97.0	79.5	93.1	104.4	102.7	100.8	110.0
Rubber footwear	-------	22.9	23.6	23.7	23.3	23.2	22.7	22.5	22.3	21.8	17.2	21.4	21.3	20.9	21.9
Other rubber products	-------	140.5	140.4	140.3	142.9	142.3	136.6	134.8	136.5	130.6	126.7	135.0	134.4	122.9	133.3
Leather and leather products	372.0	370.0	372.5	372.6	372.0	376.1	379.7	375.1	374.4	365.4	364.5	371.5	373.1	357.2	369.9
Leather: tanned, curried, and finished	-------	35.6	35.8	35.9	36.2	36.9	37.1	36.9	37.4	37.3	37.4	37.7	38.1	37.9	40.7
Industrial leather belting and packing	-------	5.0	4.9	5.0	5.1	5.2	5.2	5.0	5.1	5.0	4.8	4.7	4.7	4.1	4.6
Boot and shoe cut stock and findings	-------	19.9	19.5	19.3	18.9	18.9	19.5	19.6	19.9	19.2	19.0	19.4	19.4	18.2	18.9
Footwear (except rubber)	-------	249.9	249.4	246.5	244.7	248.8	253.3	252.2	252.2	245.9	244.6	249.1	250.7	238.1	243.8
Luggage	-------	14.7	15.1	15.5	16.2	16.1	15.7	15.5	15.3	15.3	15.3	14.8	14.8	15.0	15.6
Handbags and small leather goods	-------	31.3	32.4	33.6	34.1	33.2	32.2	30.2	28.8	27.5	28.8	31.5	31.8	29.9	30.1
Gloves and miscellaneous leather goods	-------	13.6	15.4	16.8	16.8	17.0	16.7	15.7	15.7	15.2	14.6	14.3	13.6	14.0	16.2

See footnotes at end of table.

TABLE A-2. Employees in nonagricultural establishments, by industry[1]—Continued

[In thousands]

Industry	1960		1959											Annual average	
	Feb.[2]	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1958	1957
Transportation and public utilities	3,881	3,882	3,940	3,912	3,910	3,927	3,922	3,949	3,944	3,914	3,879	3,865	3,835	3,903	4,151
Transportation	2,547	2,549	2,602	2,571	2,568	2,574	2,562	2,589	2,602	2,576	2,542	2,531	2,499	2,531	2,741
Interstate railroads	.....	899.1	919.7	898.0	893.0	906.1	928.4	960.4	967.8	956.7	942.9	936.4	930.9	963.6	1,123.4
Class I railroads	.....	785.9	796.3	784.0	786.0	797.2	819.6	846.2	850.3	839.9	824.9	817.3	811.8	840.8	984.8
Local railways and busines	.....	91.1	91.4	91.8	91.7	92.1	92.0	92.3	92.5	92.2	92.2	92.6	93.3	96.4	103.6
Trucking and warehousing	.....	876.5	897.0	892.6	898.1	881.2	854.7	855.7	853.9	840.5	828.2	823.4	810.2	792.5	812.3
Other transportation and services	.....	682.6	694.2	688.4	685.2	694.1	687.2	680.1	687.6	686.5	679.0	678.9	664.2	678.5	701.8
Busines, except local	.....	39.1	39.4	39.7	40.2	41.6	42.2	42.3	41.2	40.5	39.5	38.6	38.9	41.7	42.9
Air transportation (common carrier)	.....	152.0	152.1	150.8	150.2	149.2	148.0	146.6	145.4	143.3	142.8	141.7	140.1	140.3	144.6
Pipe-line transportation (except natural gas)	.....	24.6	24.6	24.7	24.8	25.2	25.6	25.9	25.6	25.0	24.9	25.0	24.9	25.8	26.4
Communication	736	736	739	741	741	746	748	750	744	742	742	742	743	771	810
Telephone	.....	698.3	701.1	702.9	702.8	707.7	710.8	711.7	705.7	704.0	704.3	704.0	705.0	732.4	768.2
Telegraph	.....	36.8	37.5	37.6	37.2	37.2	36.8	37.2	37.3	37.3	36.9	36.9	37.0	38.3	41.4
Other public utilities	598	597	599	600	601	607	612	610	598	596	595	592	593	601	600
Gas and electric utilities	.....	574.3	575.7	576.7	577.5	583.6	588.2	585.7	574.7	573.1	571.8	568.9	570.6	578.5	577.2
Electric light and power utilities	.....	254.1	254.7	254.9	255.0	258.1	260.2	259.4	248.2	254.9	254.3	252.5	254.1	256.3	258.7
Gas utilities	.....	152.9	153.4	153.7	153.7	155.3	156.6	156.3	154.6	152.0	151.5	150.8	150.5	151.5	149.0
Electric light and gas utilities combined	.....	167.3	167.6	168.1	168.8	170.2	171.4	170.0	161.9	166.2	166.0	165.6	166.0	168.7	169.5
Local utilities, not elsewhere classified	.....	23.1	23.1	23.2	23.4	23.7	24.0	23.9	23.6	23.2	23.1	22.8	22.4	22.9	23.0
Wholesale and retail trade	11,351	11,440	12,345	11,723	11,551	11,464	11,360	11,324	11,352	11,234	11,136	11,083	10,990	11,141	11,362
Wholesale trade	3,124	3,114	3,155	3,141	3,121	3,097	3,081	3,069	3,054	3,026	3,024	3,019	3,025	3,013	3,065
Wholesalers, full-service and limited-function	.....	1,852.3	1,882.9	1,868.8	1,858.3	1,847.9	1,836.0	1,820.6	1,813.2	1,790.9	1,784.0	1,777.5	1,775.7	1,782.0	1,772.1
Automotive	.....	138.4	139.2	138.6	138.5	138.4	139.2	137.3	135.7	133.1	131.5	130.8	130.1	126.5	123.3
Groceries, food specialties, beer, wines, and liquors	.....	316.5	321.3	320.9	314.0	311.2	305.3	305.5	306.6	304.5	305.6	306.3	308.3	303.1	303.4
Electrical goods, machinery, hardware, and plumbing equipment	.....	452.4	456.4	455.1	454.5	452.9	453.8	452.0	449.2	443.1	442.0	439.8	438.8	439.2	457.1
Other full-service and limited-function wholesalers	.....	945.0	966.0	954.2	951.3	945.4	937.7	925.8	921.7	910.2	904.9	900.6	898.5	883.2	888.3
Wholesale distributors, other	.....	1,261.4	1,272.0	1,271.8	1,263.0	1,248.8	1,245.2	1,248.6	1,240.9	1,235.2	1,240.1	1,241.3	1,249.0	1,261.4	1,293.1
Retail trade	8,227	8,326	9,190	8,582	8,430	8,367	8,279	8,255	8,298	8,208	8,112	8,064	7,965	8,128	8,297
General merchandise stores	1,411.9	1,470.3	2,025.0	1,628.3	1,520.8	1,463.2	1,407.6	1,396.7	1,422.4	1,418.7	1,388.4	1,388.3	1,348.9	1,433.8	1,457.1
Department stores and general mail-order houses	.....	946.5	1,294.3	1,053.8	976.7	931.0	905.5	898.7	913.2	905.9	893.0	890.0	870.0	928.1	944.4
Other general merchandise stores	.....	523.8	730.7	574.5	544.1	532.2	502.1	498.0	509.2	509.8	495.4	498.3	478.9	508.7	512.7
Food and liquor stores	1,632.8	1,631.7	1,663.3	1,645.6	1,627.0	1,612.1	1,604.2	1,600.3	1,616.6	1,610.6	1,604.5	1,599.0	1,597.9	1,598.8	1,573.9
Grocery, meat, and vegetable markets	.....	1,200.2	1,218.4	1,209.3	1,191.1	1,172.1	1,161.9	1,158.4	1,173.4	1,172.0	1,167.9	1,165.1	1,162.0	1,149.4	1,106.9
Dairy product stores and dealers	.....	214.4	217.1	217.2	218.3	226.9	230.6	231.0	228.1	224.1	222.6	219.1	218.5	227.4	234.4
Other food and liquor stores	.....	217.1	227.8	219.1	217.6	213.1	211.7	210.9	215.1	214.5	214.0	214.8	217.4	222.0	232.7
Automotive and accessories dealers	798.6	796.2	814.8	803.8	802.2	799.1	800.6	798.9	796.1	788.1	782.0	771.7	768.1	764.5	804.2
Apparel and accessories stores	580.8	612.8	744.0	634.3	621.2	605.1	568.8	572.1	602.2	596.0	584.5	597.0	564.3	592.1	604.6
Other retail trade	3,802.6	3,815.1	3,943.0	3,869.5	3,858.8	3,887.2	3,897.6	3,887.0	3,860.8	3,797.7	3,752.3	3,707.8	3,686.0	3,738.4	3,796.8
Furniture and appliance stores	.....	398.2	417.0	405.1	398.5	395.6	390.7	389.5	387.8	388.0	386.3	387.7	389.0	390.2	394.8
Drug stores	.....	390.9	418.4	389.8	385.4	389.3	385.7	384.4	375.5	369.3	364.1	359.4	359.6	355.8	354.7
Finance, insurance, and real estate	2,440	2,431	2,438	2,438	2,441	2,452	2,474	2,475	2,442	2,413	2,403	2,386	2,371	2,374	2,348
Banks and trust companies	.....	652.7	653.2	650.4	647.5	645.4	651.1	649.8	638.4	629.1	628.2	626.1	622.4	615.3	602.8
Security dealers and exchanges	.....	97.7	97.7	96.9	96.8	96.7	98.0	97.4	95.1	94.0	92.9	91.4	89.9	84.6	83.5
Insurance carriers and agents	.....	910.8	913.6	910.8	908.4	909.9	915.4	914.1	902.4	896.1	896.3	896.2	893.2	895.0	869.6
Other finance agencies and real estate	.....	769.9	773.7	779.4	788.7	799.7	809.8	813.4	806.5	794.1	785.1	772.4	765.0	779.5	792.0
Service and miscellaneous	6,483	6,469	6,547	6,593	6,614	6,617	6,582	6,603	6,623	6,583	6,511	6,377	6,333	6,395	633.6
Hotels and lodging places	.....	449.2	463.4	470.4	476.1	522.2	602.7	602.6	532.7	504.1	494.1	469.3	466.5	511.3	531.0
Personal services:															
Laundries	.....	307.0	309.0	310.6	312.2	313.4	315.8	317.5	316.9	311.6	307.9	305.3	304.3	312.7	326.3
Cleaning and dyeing plants	.....	171.9	173.4	174.7	174.4	169.9	165.6	169.3	176.0	175.7	170.5	166.8	164.6	167.4	169.8
Motion pictures	.....	178.9	179.8	185.6	190.0	194.2	195.9	192.9	191.1	190.1	189.2	180.9	177.9	180.8	204.1
Government	8,320	8,286	8,635	8,331	8,274	8,158	7,813	7,837	8,065	8,116	8,111	8,093	8,066	7,893	7,626
Federal[3]	2,140	2,151	2,492	2,192	2,168	2,164	2,183	2,190	2,185	2,159	2,162	2,157	2,155	2,191	2,217
Executive	.....	2,123.6	2,464.5	2,164.7	2,140.9	2,136.2	2,155.2	2,162.0	2,156.9	2,131.3	2,134.4	2,129.4	2,127.5	2,164.2	2,190.2
Department of Defense	.....	921.3	924.6	928.3	931.4	934.4	941.5	949.6	948.1	943.3	945.1	946.2	948.9	960.3	1,007.3
Post Office Department	.....	553.6	863.4	557.5	551.2	550.6	551.3	549.4	547.3	542.7	541.5	540.6	539.3	562.8	551.4
Other agencies	.....	648.7	676.5	678.9	658.3	651.2	662.4	663.0	661.5	645.3	647.8	642.6	639.3	641.1	631.5
Legislative	.....	22.5	22.5	22.5	22.6	22.7	22.7	22.7	22.8	22.4	22.5	22.4	22.3	22.1	22.1
Judicial	.....	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.7	4.6
State and local[4]	6,180	6,135	6,143	6,139	6,106	5,994	5,630	5,647	5,880	5,957	5,949	5,936	5,911	5,702	5,409
State	.....	1,549.2	1,555.4	1,555.6	1,550.6	1,517.9	1,467.9	1,480.1	1,519.1	1,536.8	1,535.2	1,531.7	1,525.5	1,470.8	1,382.9
Local	.....	4,586.1	4,587.6	4,582.9	4,555.8	4,476.2	4,162.4	4,166.7	4,360.7	4,419.9	4,414.2	4,404.6	4,385.7	4,231.1	4,025.7
Education	.....	2,947.9	2,948.7	2,945.0	2,906.4	2,746.1	2,330.0	2,335.5	2,617.5	2,772.6	2,774.8	2,774.2	2,771.4	2,603.7	2,401.8
Other	.....	3,187.4	3,194.3	3,193.5	3,200.0	3,248.0	3,300.3	3,311.3	3,262.3	3,184.1	3,174.6	3,162.1	3,139.8	3,138.2	3,006.8

[1] Beginning with the August 1958 issue, figures for 1956–58 differ from those previously published because of the adjustment of the employment estimates to 1st quarter 1957 benchmark levels indicated by data from government social insurance programs. Statistics from 195 forward are subject to revision when new benchmarks become available.

These series are based upon establishment reports which cover all full- and part-time employees in nonagricultural establishments who worked during, or received pay for, any part of the pay period ending nearest the 15th of the month. Therefore, persons who worked in more than 1 establishment during the reporting period are counted more than once. Proprietors, self-employed persons, unpaid family workers, and domestic servants are excluded.

[2] Preliminary.

[3] Data relate to civilian employees who worked on, or received pay for, the last day of the month.

[4] State and local government data exclude, as nominal employees, elected officials of small local units and paid volunteer firemen.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics for all series except those for the Federal Government, which is prepared by the U.S. Civil Service Commission, and that for Class I railroads, which is prepared by the U.S. Interstate Commerce Commission.

TABLE A–3. Production or nonsupervisory workers in nonagricultural establishments, by industry [1]

[In thousands]

Industry	1960		1959											Annual average	
	Feb.[2]	Jan.[2]	Dec.	Nov.	Oct.	Sept.[2]	Aug.	July	June	May	Apr.	Mar.	Feb.	1958	1957
Mining	-------	517	527	519	481	479	494	562	565	555	547	542	547	572	664
Metal	-------	60.6	57.2	54.9	33.7	34.0	45.1	80.1	80.9	80.0	79.4	77.2	77.4	76.5	94.4
Iron	-------	28.7	28.2	25.9	5.3	5.3	6.0	30.2	30.5	30.2	29.3	27.9	26.6	26.1	33.9
Copper	-------	8.5	5.6	5.5	6.1	6.4	14.4	25.3	25.6	25.2	25.1	24.0	25.2	23.4	27.3
Lead and zinc	-------	10.0	9.9	9.8	9.3	9.3	10.4	10.2	10.2	10.0	9.9	10.1	10.2	10.5	14.1
Anthracite	-------	14.0	14.1	14.3	14.3	13.9	13.8	15.5	13.6	13.3	13.5	14.6	16.2	18.5	26.4
Bituminous coal	-------	154.0	155.1	144.9	128.5	119.0	118.6	152.5	158.5	157.2	155.6	150.4	147.9	173.8	208.4
Crude-petroleum and natural-gas production	-------	202.0	208.3	209.6	209.4	215.7	219.0	218.6	216.8	210.0	205.9	203.1	201.1	211.1	238.0
Petroleum and natural-gas production (except contract services)	-------	104.4	104.6	104.8	105.2	107.6	109.3	108.4	107.3	104.7	105.0	105.1	105.4	112.9	122.6
Nonmetallic mining and quarrying	-------	86.3	92.6	95.3	95.3	96.4	97.2	95.5	95.0	94.5	91.8	87.1	84.2	91.9	96.3
Contract construction	-------	2,044	2,289	2,445	2,551	2,637	2,699	2,632	2,583	2,441	2,275	2,043	1,889	2,278	2,442
Nonbuilding construction	-------	359	439	507	554	581	606	606	604	570	493	398	347	497	515
Highway and street construction	-------	143.3	195.2	245.0	283.8	303.4	320.1	315.6	307.2	283.2	228.6	169.8	140.6	231.8	226.8
Other nonbuilding construction	-------	215.6	243.8	261.8	269.9	277.5	285.6	290.1	297.2	286.8	264.0	228.4	206.8	265.1	288.5
Building construction	-------	1,685	1,850	1,938	1,997	2,056	2,093	2,026	1,979	1,871	1,782	1,645	1,542	1,781	1,927
General contractors	-------	563.3	629.0	667.6	703.8	729.2	750.9	737.2	724.3	679.5	647.9	582.5	535.0	658.1	772.6
Special-trade contractors	-------	1,121.6	1,220.9	1,270.4	1,293.4	1,326.6	1,342.4	1,288.4	1,254.6	1,191.1	1,134.5	1,062.5	1,006.6	1,122.6	1,154.1
Plumbing and heating	-------	240.3	251.5	256.3	265.2	270.5	271.9	264.6	256.2	248.2	244.3	235.5	230.7	247.0	265.9
Painting and decorating	-------	162.5	184.6	201.3	207.4	218.8	225.4	218.3	197.2	180.3	155.8	136.0	124.6	153.3	150.1
Electrical work	-------	134.5	138.8	143.0	144.5	148.4	147.9	142.8	140.7	134.2	127.3	126.0	130.5	138.2	151.7
Other special-trade contractors	-------	584.2	646.0	669.8	676.3	688.9	697.2	662.7	660.5	628.4	607.1	565.0	520.8	584.1	586.4
Manufacturing	12,480	12,452	12,466	12,274	21,201	12,373	12,173	12,433	12,524	12,299	12,167	12,117	11,937	11,653	12,911
Durable goods	7,261	7,237	7,173	6,922	6,786	6,847	6,679	7,161	7,248	7,139	7,025	6,937	6,794	6,507	7,523
Nondurable goods	5,219	5,215	5,293	5,352	5,415	5,526	5,494	5,272	5,276	5,160	5,142	5,180	5,143	5,151	5,388
Durable goods															
Ordnance and accessories	74.0	74.0	74.0	72.9	73.4	73.5	71.1	72.2	72.9	73.0	73.4	73.0	72.0	68.4	76.9
Lumber and wood products (except furniture)	556.7	562.9	583.6	599.3	612.0	619.7	628.4	627.0	623.8	593.8	568.1	551.5	536.7	556.8	588.3
Logging camps and contractors	-------	88.7	95.4	99.5	101.2	101.7	107.8	108.6	105.2	89.6	77.2	76.0	69.5	80.1	80.1
Sawmills and planing mills	-------	276.9	286.3	294.8	300.0	304.2	305.2	302.2	302.4	293.5	285.4	276.8	272.6	283.6	303.5
Millwork, plywood, and prefabricated structural wood products	-------	109.4	113.6	116.7	120.8	123.6	125.5	125.4	124.1	120.0	115.2	110.1	107.4	106.5	108.3
Wooden containers	-------	38.3	39.1	38.6	39.7	39.7	39.4	41.0	41.8	41.2	40.6	40.2	39.8	40.6	45.5
Miscellaneous wood products	-------	49.6	49.2	50.0	50.3	50.5	50.5	49.8	50.3	49.5	49.7	48.4	47.4	46.0	50.9
Furniture and fixtures	328.9	328.3	327.8	327.2	328.6	329.1	323.9	319.5	320.7	317.7	316.5	315.8	315.1	297.3	314.2
Household furniture	-------	244.2	245.9	246.6	247.2	246.3	242.2	237.9	238.0	237.7	237.7	237.6	237.4	220.1	228.9
Office, public building, and professional furniture	-------	37.1	36.7	36.6	37.5	37.8	37.7	35.9	36.0	34.8	34.8	34.9	34.6	34.2	38.2
Partitions, shelving, lockers, and fixtures	-------	27.4	27.1	26.7	24.7	24.9	24.6	26.8	26.7	25.7	25.1	24.6	25.0	25.6	28.4
Screens, blinds, and miscellaneous furniture and fixtures	-------	19.6	18.1	17.3	19.2	20.1	19.4	18.9	20.0	19.5	18.9	18.7	18.1	17.4	18.7
Stone, clay, and glass products	445.8	444.1	452.4	457.1	458.2	469.2	468.3	463.5	465.8	453.8	444.3	432.5	412.9	417.8	456.0
Flat glass	-------	32.0	32.3	32.1	32.6	30.4	29.9	28.8	29.2	29.3	29.8	29.8	29.5	23.5	30.9
Glass and glassware, pressed or blown	-------	84.9	85.9	87.2	83.0	88.6	87.4	85.7	88.1	85.8	83.8	82.2	80.3	80.5	83.4
Glass products made of purchased glass	-------	14.5	14.8	15.3	15.6	15.5	15.0	14.8	14.8	14.6	14.9	15.1	14.6	13.3	15.0
Cement, hydraulic	-------	32.6	33.9	34.3	33.7	35.8	36.3	36.0	35.8	35.2	34.7	33.3	31.5	34.6	35.0
Structural clay products	-------	63.5	66.0	67.2	67.5	67.5	68.7	68.5	68.4	66.3	64.6	61.2	59.0	63.4	70.3
Pottery and related products	-------	42.1	42.0	43.0	43.1	43.5	42.8	42.4	42.4	40.3	39.6	39.3	38.8	37.6	43.3
Concrete, gypsum, and plaster products	-------	88.2	91.7	94.0	97.2	101.0	101.7	99.9	99.2	95.8	92.4	87.5	83.8	86.9	90.6
Cut-stone and stone products	-------	14.8	15.3	15.6	15.9	16.0	16.1	15.9	15.7	15.6	15.2	15.4	15.3	15.7	16.5
Miscellaneous nonmetallic mineral products	-------	71.5	70.5	68.4	69.6	70.9	70.4	71.5	72.2	70.9	69.4	68.6	67.1	62.3	71.0
Primary metal industries	1,056.4	1,047.2	1,038.8	975.0	602.3	611.0	628.0	1,038.4	1,066.5	1,051.8	1,037.4	1,014.7	979.3	891.0	1,081.6
Blast furnaces, steel works, and rolling mills	-------	532.4	527.7	493.2	118.8	123.3	132.4	521.2	543.1	536.8	529.2	515.2	489.4	436.8	537.0
Iron and steel foundries	-------	197.6	197.6	183.2	194.2	195.6	194.1	197.7	199.8	195.9	194.3	189.6	184.4	167.4	201.6
Primary smelting and refining of nonferrous metals	-------	39.7	37.4	32.4	32.9	33.3	43.2	44.5	44.1	42.8	42.1	42.5	42.5	43.2	53.5
Secondary smelting and refining of nonferrous metals	-------	9.4	9.2	8.8	8.8	8.8	9.4	9.4	9.4	9.3	9.1	9.0	8.9	8.2	9.8
Rolling, drawing, and alloying of nonferrous metals	-------	88.4	89.1	89.1	89.9	90.5	89.8	92.2	92.7	91.6	89.1	86.7	84.8	80.6	89.2
Nonferrous foundries	-------	55.5	55.2	54.3	55.7	54.3	52.9	52.5	53.4	53.0	52.8	52.3	51.6	46.4	58.6
Miscellaneous primary metal industries	-------	124.2	122.6	114.0	102.0	105.2	106.2	120.9	124.0	122.4	120.8	119.4	117.7	108.4	131.9
Fabricated metal products (except ordnance, machinery, and transportation equipment)	858.3	853.8	840.9	799.9	811.8	841.4	815.2	846.9	865.8	852.5	839.5	829.2	816.7	795.8	892.5
Tin cans and other tinware	-------	50.2	49.1	48.2	49.1	57.7	56.6	55.0	55.4	53.4	51.4	49.6	49.3	50.6	51.4
Cutlery, handtools, and hardware	-------	111.4	110.2	95.0	101.9	110.0	106.3	104.4	108.4	107.6	106.8	108.1	107.6	100.1	115.5
Heating apparatus (except electric) and plumbers' supplies	-------	88.9	86.8	89.2	93.1	94.0	92.9	89.2	91.5	90.0	88.8	88.6	86.7	83.3	83.9
Fabricated structural metal products	-------	200.1	199.3	192.8	181.4	190.2	195.6	221.5	220.7	215.2	210.9	204.5	203.0	220.0	241.8
Metal stamping, coating, and engraving	-------	201.3	196.2	179.5	193.9	196.4	177.1	186.0	191.5	190.1	187.1	187.0	182.4	169.4	201.3
Lighting fixtures	-------	39.7	39.0	38.8	40.5	40.4	38.2	36.9	38.2	38.4	38.3	37.9	37.4	34.2	40.8
Fabricated wire products	-------	48.1	47.7	45.8	43.4	43.8	41.9	44.9	46.5	46.5	46.6	46.3	45.4	41.7	47.9
Miscellaneous fabricated metal products	-------	114.1	112.6	110.6	108.5	108.9	106.6	109.0	113.6	111.3	109.6	107.2	104.9	96.5	109.9

See footnotes at end of table.

TABLE A-3. Production or nonsupervisory workers in nonagricultural establishments, by industry [1]—Continued

[In thousands]

Industry	1960		1959											Annual average	
	Feb.[2]	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1958	1957
Manufacturing—Continued															
Durable goods—Continued															
Machinery (except electrical)	1,189.0	1,179.7	1,166.0	1,135.9	1,146.8	1,167.1	1,137.7	1,149.4	1,167.0	1,152.6	1,126.2	1,112.9	1,089.7	1,039.3	1,255.7
Engines and turbines		69.7	68.3	66.0	67.1	68.1	63.2	66.4	67.5	76.2	64.2	64.4	63.5	60.7	68.3
Agricultural machinery and tractors		110.1	106.5	94.5	103.9	119.8	111.8	124.6	127.1	126.7	117.1	115.3	110.5	94.7	105.7
Construction and mining machinery		90.0	88.7	84.7	85.6	91.6	90.7	94.1	95.5	93.5	90.1	88.8	86.6	82.4	109.4
Metalworking machinery		190.8	189.7	186.7	184.0	182.1	176.1	175.5	176.3	174.0	171.7	168.6	163.6	162.1	218.2
Special-industry machinery (except metalworking machinery)		121.1	120.7	120.2	118.2	119.1	116.3	114.9	115.6	113.1	112.0	111.1	109.5	108.5	125.9
General industrial machinery		146.5	146.2	146.0	146.6	146.1	146.5	143.1	143.3	145.1	138.4	135.4	134.3	138.1	166.3
Office and store machines and devices		92.8	92.7	92.0	91.6	90.4	88.6	87.7	90.2	89.4	89.1	88.7	88.0	84.0	99.2
Service-industry and household machines		145.4	140.9	136.3	138.4	138.3	138.0	138.3	141.1	140.2	138.7	138.5	136.1	123.2	141.2
Miscellaneous machinery parts		213.3	212.3	209.5	211.4	211.6	204.5	204.8	210.4	207.0	204.9	202.1	197.6	185.6	221.5
Electrical machinery	889.9	891.4	891.9	881.6	893.3	888.4	849.6	835.9	832.5	814.2	802.5	798.4	795.5	760.1	857.7
Electrical generating, transmission, distribution, and industrial apparatus		286.0	284.7	275.4	281.6	286.5	281.3	277.8	277.9	272.1	265.1	261.4	259.4	247.8	288.4
Electrical appliances		29.4	29.8	29.9	30.6	30.0	28.4	27.3	27.5	27.8	27.2	27.0	26.2	25.4	31.2
Insulated wire and cable		22.9	22.7	22.2	22.2	21.5	21.1	20.4	21.4	21.5	21.7	21.5	21.6	19.3	20.9
Electrical equipment for vehicles		60.2	58.5	54.9	57.9	56.7	45.7	52.9	54.3	54.3	55.6	55.4	55.3	47.0	59.3
Electric lamps		25.8	25.8	25.6	25.5	24.8	24.0	23.8	23.7	23.2	22.9	22.5	22.4	22.5	26.1
Communication equipment		431.5	433.2	435.8	437.2	430.2	412.8	397.9	391.8	380.4	375.2	375.9	375.2	355.4	395.8
Miscellaneous electrical products		35.6	37.2	37.8	38.3	38.7	36.3	35.8	35.9	34.9	34.8	34.7	35.4	32.7	36.0
Transportation equipment	1,251.5	1,248.1	1,172.1	1,026.0	1,207.8	1,199.8	1,132.0	1,207.4	1,224.0	1,232.9	1,229.0	1,225.6	1,203.3	1,124.0	1,383.6
Motor vehicles and equipment		662.9	592.7	439.0	622.5	599.5	519.7	586.3	598.1	599.6	594.3	591.1	567.8	480.0	630.1
Aircraft and parts		417.7	422.1	428.8	435.2	445.3	444.5	448.6	451.3	458.5	463.5	469.0	473.2	479.3	563.6
Aircraft		241.6	243.7	249.4	254.0	262.7	263.7	264.8	266.0	273.6	279.8	283.9	287.6	291.5	340.9
Aircraft engines and parts		84.4	84.9	85.6	85.8	85.6	83.7	86.4	86.8	87.0	87.5	88.1	88.7	89.9	111.3
Aircraft propellers and parts		8.4	8.4	8.3	8.7	8.9	8.9	9.2	9.3	9.4	9.4	9.8	9.6	12.2	13.9
Other aircraft parts and equipment		83.3	85.1	85.5	86.7	88.1	88.2	88.2	89.2	88.5	86.8	87.2	87.3	85.7	97.5
Ship and boat building and repairing		122.5	116.3	117.5	107.0	107.1	116.5	120.5	124.3	126.4	126.5	122.7	120.1	121.4	127.2
Shipbuilding and repairing		102.1	96.2	98.1	88.6	89.8	100.1	102.3	103.5	105.2	104.7	103.8	101.7	105.1	108.5
Boatbuilding and repairing		20.4	20.1	19.4	18.4	17.3	16.4	18.2	20.8	21.2	20.8	18.9	18.4	16.3	18.7
Railroad equipment		38.2	33.3	32.2	34.0	38.8	42.3	43.2	41.7	40.1	37.6	34.8	34.7	36.1	54.7
Other transportation equipment		6.8	7.7	8.5	9.1	9.1	9.0	8.8	8.6	8.3	8.1	8.0	7.5	7.2	8.0
Instruments and related products	230.6	230.0	232.2	231.9	231.9	230.7	224.0	220.8	223.5	218.6	215.9	215.9	212.6	205.3	226.2
Laboratory, scientific and engineering instruments		36.4	37.4	37.2	36.9	36.5	35.1	35.5	35.0	34.7	34.1	33.5	32.9	31.8	36.6
Mechanical measuring and controlling instruments		65.2	65.0	64.4	65.8	65.1	63.5	62.9	63.9	60.5	59.8	60.9	59.3	55.8	62.1
Optical instruments and lenses		12.1	11.5	12.0	11.6	11.2	10.8	10.3	10.1	10.2	10.4	10.3	10.2	9.4	10.3
Surgical, medical, and dental instruments		29.7	30.0	29.5	29.0	29.2	28.4	27.7	29.4	28.8	28.4	28.1	27.9	27.3	28.9
Ophthalmic goods		22.4	22.4	22.3	22.0	21.9	20.9	20.1	20.2	20.0	19.7	19.5	19.2	18.4	19.6
Photographic apparatus		39.5	40.5	40.5	39.8	40.0	39.7	39.5	39.3	38.8	38.5	38.4	38.3	39.7	43.7
Watches and clocks		24.7	25.4	26.0	26.8	26.8	25.6	24.8	25.6	25.6	25.0	25.2	24.8	22.9	25.0
Miscellaneous manufacturing industries	380.1	377.1	393.0	414.8	420.0	416.6	400.7	380.2	385.3	378.5	372.4	367.7	360.0	361.0	390.6
Jewelry, silverware, and plated ware		36.6	37.8	38.2	38.1	37.3	36.2	34.5	35.5	35.5	34.9	35.0	35.1	34.5	36.3
Musical instruments and parts		16.4	16.7	16.7	16.7	16.0	15.3	12.3	12.6	14.6	14.8	14.8	14.6	13.6	15.3
Toys and sporting goods		57.9	64.6	80.7	85.9	85.1	80.1	72.6	73.7	69.4	65.6	61.0	57.6	67.5	75.6
Pens, pencils, other office supplies		22.3	22.9	24.1	24.3	24.1	23.5	22.9	22.7	22.4	22.4	22.1	21.5	22.3	24.0
Costume jewelry, buttons, notions		48.8	49.4	49.9	50.6	50.7	50.4	47.7	47.9	47.0	46.7	48.1	48.6	46.4	49.2
Fabricated plastics products		75.0	76.3	77.0	77.2	76.4	73.4	71.6	72.3	71.9	71.4	70.6	69.0	64.8	71.6
Other manufacturing industries		120.1	125.3	128.2	127.2	127.0	121.8	118.6	120.6	117.7	116.6	116.1	113.6	111.9	118.6
Nondurable goods															
Food and kindred products	938.3	954.1	989.5	1,031.8	1,080.1	1,162.0	1,176.0	1,061.7	1,029.6	974.1	958.3	945.4	942.6	1,035.3	1,065.7
Meat products		240.2	244.8	243.6	233.4	229.0	249.3	245.2	244.5	241.5	235.3	239.2	239.0	243.5	259.2
Dairy products		59.4	60.0	60.8	63.7	68.9	71.0	72.0	72.3	68.1	64.5	62.3	61.3	66.7	69.6
Canning and preserving		137.6	149.6	177.9	225.9	316.2	314.8	218.6	179.9	146.9	147.8	133.9	129.2	186.6	187.7
Grain-mill products		74.1	75.2	74.8	77.7	79.9	79.6	78.9	79.7	78.1	76.6	78.2	78.6	79.5	79.5
Bakery products		160.6	162.7	165.7	165.7	165.0	165.6	162.5	162.3	159.6	158.6	158.4	159.0	164.9	169.9
Sugar		29.6	35.3	39.0	36.8	23.8	22.2	20.5	20.1	19.4	20.0	20.3	21.3	25.9	26.1
Confectionery and related products		59.0	62.9	64.0	64.6	63.3	59.4	54.2	57.0	54.5	55.8	56.5	59.5	61.6	63.5
Beverages		103.5	108.8	113.4	117.6	120.7	118.4	115.8	116.0	112.2	107.2	104.9	102.6	112.4	116.1
Miscellaneous food products		90.1	90.2	92.6	94.7	95.2	95.7	94.0	97.8	93.8	92.5	91.7	92.1	94.2	94.1
Tobacco manufactures	78.0	77.6	80.9	82.2	92.8	98.4	89.7	67.2	69.9	69.0	69.7	72.0	76.4	80.1	84.4
Cigarettes		32.5	32.5	32.8	32.5	32.6	32.8	30.5	32.4	31.9	31.8	32.2	32.2	31.5	30.2
Cigars		23.6	25.5	25.7	25.8	25.5	25.2	24.1	25.4	25.4	25.5	25.6	25.7	27.4	30.6
Tobacco and snuff		5.4	5.3	5.4	5.4	5.6	5.7	5.7	5.8	5.6	5.5	5.4	5.4	5.4	5.5
Tobacco stemming and redrying		16.1	17.6	18.3	29.1	34.7	26.0	6.9	6.3	6.1	6.9	8.8	13.1	15.8	17.8

See footnotes at end of table.

TABLE A–3. Production or nonsupervisory workers in nonagricultural establishments, by industry [1]—Continued

[In thousands]

Industry	1960		1959											Annual average	
	Feb.[2]	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1958	1957
Manufacturing—Continued															
Nondurable goods—Continued															
Textile-mill products	857.9	858.0	867.4	875.6	885.3	889.6	886.7	872.1	882.8	874.3	869.2	866.4	860.0	850.8	912.9
Scouring and combing plants	.....	5.1	4.9	4.8	5.1	5.2	5.3	5.2	5.1	5.1	4.9	4.7	4.7	4.7	5.0
Yarn and thread mills	.....	98.9	99.8	100.4	101.9	103.2	103.0	102.7	103.1	102.1	101.5	100.8	99.8	99.7	107.2
Broad-woven fabric mills	.....	367.8	369.9	370.2	371.5	371.5	371.5	367.7	371.3	370.2	369.5	371.0	370.3	372.4	401.5
Narrow fabrics and smallwares	.....	25.9	25.8	25.8	25.9	26.3	26.2	26.1	26.6	26.1	25.9	25.7	25.5	23.9	25.4
Knitting mills	.....	188.7	195.7	203.6	207.5	209.5	209.7	200.7	204.8	200.0	196.0	192.6	189.3	186.8	194.3
Dyeing and finishing textiles	.....	77.4	77.1	77.3	77.5	77.5	76.8	76.4	77.6	76.5	76.4	76.1	75.4	73.7	77.1
Carpets, rugs, other floor coverings	.....	39.0	38.6	38.5	39.1	38.8	38.0	38.0	38.0	38.8	39.4	40.1	39.9	36.7	42.5
Hats (except cloth and millinery)	.....	9.1	9.2	8.9	8.4	9.0	9.1	8.7	9.0	9.0	8.7	8.9	9.0	9.0	9.4
Miscellaneous textile goods	.....	46.1	46.4	46.1	48.4	48.6	47.1	46.6	47.3	46.5	46.8	46.5	46.1	43.9	50.5
Apparel and other finished textile products	1,107.9	1,090.8	1,102.5	1,107.0	1,100.0	1,106.2	1,102.7	1,047.5	1,067.9	1,055.0	1,054.5	1,084.8	1,078.3	1,027.0	1,064.5
Men's and boys' suits and coats	.....	101.8	102.4	102.6	101.7	102.4	101.8	93.1	101.4	99.0	97.0	98.3	97.3	95.0	105.3
Men's and boys' furnishings and work clothing	.....	315.9	318.4	321.1	320.4	320.5	318.6	309.0	310.5	303.6	299.2	298.8	293.5	283.9	288.9
Women's outerwear	.....	311.1	313.8	311.3	299.5	306.2	311.3	293.3	299.4	302.2	302.8	323.2	323.4	302.7	312.0
Women's, children's undergarments	.....	106.9	108.7	111.1	111.1	109.7	107.7	100.0	104.4	103.5	105.1	105.6	105.1	101.9	106.8
Millinery	.....	16.5	16.2	15.0	16.4	16.4	17.4	16.4	11.5	11.7	14.8	20.2	21.0	15.7	16.3
Children's outerwear	.....	65.8	64.5	64.8	64.3	66.2	68.0	66.0	68.5	65.6	62.9	66.6	69.8	65.1	65.7
Fur goods	.....	5.2	6.8	7.3	7.7	7.4	6.4	7.8	7.5	7.2	6.4	6.8	6.4	8.2	7.8
Miscellaneous apparel and accessories	.....	52.0	54.8	56.8	57.9	58.0	56.8	51.8	54.6	52.6	52.8	53.2	52.4	50.9	53.2
Other fabricated textile products	.....	115.6	116.9	117.0	121.0	119.4	114.7	110.1	110.1	109.6	112.9	112.1	109.4	103.6	108.5
Paper and allied products	444.5	445.6	450.5	452.3	453.6	459.7	454.3	449.0	453.3	446.0	443.1	440.8	440.1	439.3	458.8
Pulp, paper, and paperboard mills	.....	220.9	222.2	222.2	222.1	227.0	226.6	225.9	227.0	222.7	221.1	219.2	220.1	220.7	229.1
Paperboard containers and boxes	.....	122.5	125.2	127.1	127.4	127.3	123.9	120.8	123.0	120.6	120.0	120.0	119.4	119.6	125.2
Other paper and allied products	.....	102.2	103.1	103.0	104.1	105.4	103.8	102.3	103.3	102.7	102.0	101.6	100.6	99.0	104.5
Printing, publishing, and allied industries	563.8	562.1	570.6	570.2	569.8	569.8	558.2	552.1	554.9	552.9	553.2	550.9	545.0	545.4	553.2
Newspapers	.....	161.7	165.8	163.6	164.1	163.8	161.0	159.9	160.7	160.9	160.5	158.6	157.3	157.2	156.1
Periodicals	.....	26.7	27.2	27.5	27.6	27.4	26.0	25.3	25.8	26.4	27.0	26.9	26.3	25.6	25.6
Books	.....	37.1	36.4	36.3	36.3	37.0	36.4	34.4	35.2	35.0	35.1	34.6	34.6	33.7	35.2
Commercial printing	.....	185.4	185.4	184.4	183.8	183.4	179.0	178.8	178.9	176.7	178.2	179.1	176.9	177.5	181.3
Lithographing	.....	49.5	50.3	51.5	51.1	51.0	50.1	49.7	49.9	50.1	49.8	49.6	49.1	49.7	50.7
Greeting cards	.....	12.5	15.4	16.7	16.1	16.3	15.6	15.3	15.5	14.8	13.0	13.6	13.7	14.2	13.8
Bookbinding and related industries	.....	36.4	36.8	36.7	37.5	37.7	37.2	36.0	36.3	36.4	36.2	35.6	34.9	35.0	37.0
Miscellaneous publishing and printing services	.....	52.8	53.3	53.5	53.3	53.2	52.9	52.7	52.6	52.6	53.5	52.9	53.2	52.6	53.5
Chemicals and allied products	537.7	536.4	537.1	539.0	540.0	539.9	532.1	526.6	526.9	532.4	534.7	527.1	518.3	512.2	548.1
Industrial inorganic chemicals	.....	69.5	69.6	69.7	69.2	69.4	69.2	68.9	68.1	67.9	67.5	67.2	66.7	67.3	73.0
Industrial organic chemicals	.....	208.5	206.8	206.9	206.7	208.0	207.8	205.7	204.4	201.9	200.1	198.7	196.8	191.8	210.3
Drugs and medicines	.....	57.5	57.3	56.9	56.9	57.6	57.5	57.2	56.8	54.9	57.3	57.5	57.3	57.6	57.9
Soap, cleaning and polishing preparations	.....	30.0	30.2	30.1	30.4	30.8	30.6	30.2	30.3	30.1	30.4	30.1	30.1	30.1	30.7
Paints, pigments, and fillers	.....	45.2	45.8	45.8	46.6	45.7	45.9	45.6	45.4	45.9	45.1	44.6	44.2	43.7	45.9
Gum and wood chemicals	.....	6.4	6.4	6.3	6.3	6.4	6.3	6.4	6.1	6.3	6.2	6.2	6.2	6.4	7.2
Fertilizers	.....	26.6	24.9	24.0	24.7	24.9	22.5	21.7	24.3	34.8	35.6	32.2	26.9	26.1	26.7
Vegetable and animal oils and fats	.....	27.9	29.4	30.4	30.8	28.5	25.1	24.4	24.7	25.0	26.4	26.9	27.3	26.1	28.1
Miscellaneous chemicals	.....	64.8	66.7	66.9	68.4	68.6	67.2	66.5	66.8	65.6	65.1	[illegible]	[illegible]	63.1	65.3
Products of petroleum and coal	152.9	153.7	154.5	153.7	150.5	152.9	150.7	158.2	160.4	159.2	159.3	[illegible]	150.3	157.0	168.0
Petroleum refining	.....	116.1	116.4	114.9	115.5	117.1	114.7	120.4	122.3	121.5	121.8	122.3	114.7	121.2	128.1
Coke, other petroleum and coal products	.....	37.6	38.1	38.8	35.0	35.8	36.0	37.8	38.1	37.7	37.5	37.3	35.6	35.8	39.9
Rubber products	208.5	207.8	208.0	209.1	212.3	212.4	203.8	203.4	196.1	171.8	176.0	201.5	198.8	186.0	208.9
Tires and inner tubes	.....	78.3	78.1	79.0	79.7	80.5	78.4	79.7	70.7	52.2	66.0	77.9	76.2	74.7	83.3
Rubber footwear	.....	18.8	19.4	19.6	19.1	19.0	18.4	18.3	18.2	17.7	12.9	17.4	17.1	16.7	17.6
Other rubber products	.....	110.7	110.5	110.5	113.5	112.9	107.0	105.4	107.2	101.9	97.1	106.2	105.5	94.6	108.0
Leather and leather products	329.7	328.4	331.5	331.0	331.0	335.4	339.3	334.6	333.9	325.4	324.2	331.2	332.8	317.7	329.2
Leather: tanned, curried, and finished	.....	31.3	31.5	31.7	31.9	32.6	32.8	32.4	33.1	32.9	33.1	33.5	33.9	33.7	36.4
Industrial leather belting and packing	.....	3.9	3.8	3.9	4.0	4.0	4.0	3.9	4.0	3.9	3.7	3.6	3.6	3.1	3.5
Boot and shoe cut stock and findings	.....	17.9	17.4	17.4	16.9	16.9	17.5	17.6	17.9	17.3	17.1	17.5	17.4	16.2	16.8
Footwear (except rubber)	.....	223.9	224.0	220.4	219.2	223.7	228.5	227.3	227.0	221.1	219.6	223.9	225.6	213.8	219.1
Luggage	.....	12.4	12.8	13.2	14.0	13.8	13.4	13.2	13.0	13.0	13.0	12.6	12.4	12.5	13.1
Handbags and small leather goods	.....	27.3	28.3	29.5	30.1	29.3	28.3	26.3	25.0	23.8	24.9	27.5	28.0	26.1	26.1
Gloves and miscellaneous leather goods	.....	11.7	13.7	14.9	14.9	15.1	14.8	13.9	13.9	13.4	12.8	12.6	11.9	12.3	14.2

See footnotes at end of table.

TABLE A–3. Production or nonsupervisory workers in nonagricultural establishments, by industry [1]—Continued

[In thousands]

Industry	1960		1959											Annual average	
	Feb.[2]	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1958	1957
Transportation and public utilities:															
Other public utilities		530	532	533	534	541	547	544	533	530	529	526	527	537	540
Gas and electric utilities		509.4	511.3	512.8	513.5	520.1	525.3	522.6	512.0	509.6	508.0	505.4	507.1	516.4	519.0
Electric light and power utilities		219.0	220.3	220.8	221.1	224.3	226.9	226.2	224.7	220.7	219.5	217.7	219.3	223.2	226.0
Gas utilities		137.6	137.9	138.2	138.2	139.7	140.9	140.7	139.3	136.8	136.5	136.0	135.9	137.5	136.4
Electric light and gas utilities combined		152.8	153.1	153.8	154.2	156.1	157.5	155.7	148.0	152.1	152.0	151.7	151.9	155.7	156.6
Local utilities, not elsewhere classified		20.2	20.4	20.5	20.7	21.0	21.4	21.3	21.0	20.6	20.6	20.3	19.8	20.4	20.7
Wholesale and retail trade:															
Wholesale trade		2,674	2,721	2,709	2,694	2,671	2,655	2,646	2,637	2,611	2,614	2,611	2,618	2,622	2,695
Wholesalers, full-service and limited-function		1,607.3	1,643.0	1,633.1	1,623.4	1,612.9	1,601.8	1,589.4	1,584.4	1,564.4	1,558.9	1,553.6	1,551.0	1,536.7	1,572.2
Automotive		120.3	121.3	120.9	120.8	120.6	121.1	119.6	118.1	115.7	114.3	113.4	112.5	110.0	108.4
Groceries, food specialties, beer, wines, and liquors		282.3	287.2	287.2	280.1	277.9	272.6	273.1	274.1	271.9	273.2	274.2	276.0	272.2	273.4
Electrical goods, machinery, hardware, and plumbing equipment		390.4	394.8	394.6	394.5	392.2	393.4	391.4	389.0	383.7	382.4	380.5	380.0	382.1	402.7
Other full-service and limited-function wholesalers		814.3	839.7	830.4	828.0	822.2	814.7	805.3	803.2	793.1	789.0	785.5	782.5	772.4	787.7
Wholesale distributors, other		1,066.6	1,078.1	1,075.9	1,070.8	1,058.1	1,052.7	1,056.1	1,052.1	1,047.0	1,054.9	1,057.5	1,066.9	1,084.9	1,122.6
Retail trade:															
General merchandise stores		1,362.1	1,919.3	1,525.8	1,419.1	1,363.3	1,307.9	1,301.5	1,328.4	1,318.3	1,289.1	1,286.1	1,349.2	1,334.7	1,356.5
Department stores and general mail-order houses		871.8	1,219.3	981.1	904.4	859.3	833.9	830.4	844.7	836.1	822.4	819.7	799.5	855.9	875.9
Other general merchandise stores		490.3	700.0	544.7	514.7	504.0	474.0	471.1	481.7	482.2	466.7	466.4	449.7	478.8	480.6
Food and liquor stores		1,490.4	1,532.9	1,516.0	1,498.1	1,484.8	1,477.5	1,468.4	1,489.9	1,482.4	1,477.3	1,469.3	1,471.3	1,483.2	1,465.5
Grocery, meat, and vegetable markets		1,127.0	1,145.3	1,136.8	1,118.4	1,099.4	1,089.8	1,080.8	1,100.7	1,098.2	1,095.5	1,090.6	1,089.9	1,078.7	1,038.4
Dairy-product stores and dealers		180.3	184.7	184.0	184.9	194.9	198.5	199.5	196.9	192.5	190.1	185.6	184.8	198.5	206.7
Other food and liquor stores		192.1	203.5	195.2	194.8	190.5	189.2	188.1	192.3	191.7	191.7	193.1	196.6	206.0	220.4
Automotive and accessories dealers		701.3	720.5	708.8	709.0	706.8	709.0	708.6	705.3	697.3	691.5	681.9	680.1	677.2	719.3
Apparel and accessories stores		560.1	692.0	583.1	569.3	552.1	517.3	521.0	550.5	544.5	535.2	546.6	512.9	542.0	556.6
Other retail trade (except eating and drinking places)		2,095.1	2,196.9	2,131.1	2,113.9	2,129.0	2,124.8	2,110.9	2,090.6	2,057.8	2,040.7	2,027.8	2,023.8	2,056.7	2,094.6
Furniture and appliance stores		359.5	379.0	367.8	361.4	358.4	353.6	352.1	351.0	350.4	348.8	350.4	351.3	354.3	361.2
Drug stores		369.4	393.3	369.1	365.0	368.7	364.8	363.3	355.3	349.4	343.7	340.0	340.5	337.0	337.7

[1] For comparability of data with those published in issues prior to August 1958 and coverage of the series, see footnote 1, table A–2.

Production and related workers include working foremen and all nonsupervisory workers (including leadmen and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial, watchman services, product development, auxiliary production for plant's own use (e.g., powerplant), and recordkeeping and other services closely associated with the aforementioned production operations.

[2] Preliminary.

TABLE A–4. Unemployment insurance and employment service programs, selected operations [1]

[All items except average benefit amounts are in thousands]

Item	1960	1959											
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.
Employment service: [2]													
New applications for work	875	707	823	762	744	686	756	913	711	736	742	806	896
Nonfarm placements	418	432	465	556	633	570	564	581	555	520	445	378	398
State unemployment insurance programs:													
Initial claims [3] [4]	1,621	1,645	1,801	1,197	936	1,011	1,228	973	880	1,086	1,123	1,263	1,772
Insured unemployment [5] (average weekly volume)	2,180	1,841	1,677	1,309	1,203	1,291	1,333	1,298	1,464	1,768	2,077	2,368	2,489
Rate of insured unemployment [6]	5.6	4.8	4.4	3.4	3.1	3.4	3.5	3.4	3.8	4.5	5.3	6.0	6.3
Weeks of unemployment compensated [7]	7,621	7,108	8,398	4,620	4,826	4,627	5,061	5,202	6,638	7,516	8,660	8,628	9,532
Average weekly benefit amount for total unemployment [8]	$31.90	$31.91	$32.21	$30.81	$30.49	$29.76	$29.10	$29.23	$29.45	$30.02	$30.38	$30.52	$30.50
Total benefits paid	$235,202	$219,466	$168,344	$136,856	$141,800	$133,444	$142,803	$142,919	$162,011	$213,722	$260,608	$250,985	$274,663
Unemployment compensation for ex-servicemen: [9] [4]													
Initial claims [3]	31	31	28	27	24	25	27	23	19	26	28	29	32
Insured unemployment [5] (average weekly volume)	60	53	48	41	40	44	43	43	52	64	71	71	64
Weeks of unemployment compensated	241	229	175	160	174	176	181	188	222	287	298	265	243
Total benefits paid	$7,427	$6,966	$5,297	$4,825	$5,207	$5,238	$5,349	$5,564	$6,533	$8,459	$8,735	$7,746	$7,116
Unemployment compensation for Federal civilian employees: [10] [4]													
Initial claims [3]	17	14	14	13	12	11	15	12	10	13	13	14	18
Insured unemployment [5] (average weekly volume)	38	33	31	28	27	28	28	28	30	34	38	39	39
Weeks of unemployment compensated	146	144	117	112	117	114	115	121	126	151	162	151	155
Total benefits paid	$4,820	$4,713	$3,815	$3,568	$3,685	$3,602	$3,578	$3,801	$3,921	$4,716	$5,032	$4,686	$4,801
Railroad unemployment insurance:													
Applications [11]	12	15	21	22	32	35	87	8	4	5	6	8	17
Insured unemployment (average weekly volume)	78	105	93	97	94	79	63	35	39	58	76	94	122
Number of payments [12]	169	190	201	223	194	174	95	88	96	148	199	217	311
Average amount of benefit payment [12]	$80.61	$80.82	$80.61	$83.50	$84.31	$83.16	[14] $75.22	$72.13	$62.36	$62.72	$65.47	$65.57	$65.68
Total benefits paid [12]	$16,582	$19,206	$21,693	$25,810	$26,078	$27,314	$18,918	$21,202	$8,641	$9,099	$12,477	$13,752	$20,345
All programs: [15]													
Insured unemployment [5]	2,359	2,008	1,853	1,479	1,370	1,451	1,477	1,414	1,593	1,936	2,282	2,596	2,739

[1] Data relate to the United States (including Alaska and Hawaii), except where otherwise indicated.

[2] Includes Guam, Puerto Rico, and the Virgin Islands.

[3] Initial claims are notices filed by workers to indicate they are starting periods of unemployment. Excludes transitional claims.

[4] Includes Puerto Rico and the Virgin Islands.

[5] Number of workers reporting the completion of at least 1 week of unemployment.

[6] The rate is the number of insured unemployed expressed as a percent of the average covered employment in a 12-month period.

[7] Includes data for the Federal civilian employee program through June 1959.

[8] Includes data for the Federal civilian employee program for the period October 1958–June 1959.

[9] Excludes data on claims and payments made jointly with other programs.

[10] Excludes data on claims and payments made jointly with State programs.

[11] An application for benefits is filed by a railroad worker at the beginning of his first period of unemployment in a benefit year; no application is required for subsequent periods in the same year.

[12] Payments are for unemployment in 14-day registration periods.

[13] The average amount is an average for all compensable periods, not adjusted for recovery of overpayments or settlement of underpayments.

[14] Revised.

[15] Adjusted for recovery of overpayments and settlement of underpayments.

[16] Represents an unduplicated count of insured unemployment under the State, Ex-servicemen and UCFE programs, the Railroad Unemployment Insurance Act, and the Veterans' Readjustment Assistance Act of 1952 (not presented separately in table), which terminates January 31, 1960.

NOTE: Data on State UI initial claims differ from those published in the September 1959 issue, owing to the exclusion of transitional claims.

SOURCE: U.S. Department of Labor, Bureau of Employment Security for all items except railroad unemployment insurance, which is prepared by the U.S. Railroad Retirement Board.

B.—Labor Turnover

TABLE B–1. Labor turnover rates, by major industry group [1]

[Per 100 employees]

Major industry group	1960	1959											Annual average	
	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1958	1957
	Accessions: Total [3]														
Manufacturing	3.3	3.8	3.0	3.1	3.9	3.9	3.3	4.4	3.6	3.5	3.6	3.3	3.3	3.0	2.9
Durable goods	3.6	4.7	3.2	3.1	4.1	4.1	3.3	4.5	3.7	3.7	3.9	3.5	3.5	3.2	2.9
Ordnance and accessories	2.6	2.2	2.8	2.7	2.9	3.0	2.6	4.0	2.5	2.6	3.2	2.8	2.6	2.8	2.5
Lumber and wood products	3.0	2.4	3.1	3.6	4.5	4.6	5.0	7.4	8.2	6.1	4.6	3.3	3.4	4.1	4.1
Furniture and fixtures	3.4	2.9	3.0	3.8	4.8	5.3	4.5	4.8	4.1	3.6	4.0	3.0	3.9	3.4	3.3
Stone, clay, and glass products	2.6	1.9	2.8	2.5	2.7	3.3	2.9	4.5	3.1	3.1	3.5	3.1	3.3	2.9	2.4
Primary metal industries	2.7	2.7	2.2	2.2	2.8	2.4	1.8	2.8	2.7	3.3	4.1	4.3	3.7	2.8	1.8
Fabricated metal products	4.6	6.3	5.8	3.2	4.6	5.7	3.6	4.8	3.9	4.1	4.3	3.6	3.4	3.6	3.4
Machinery (except electrical)	3.1	3.1	2.7	2.4	3.1	3.0	2.8	4.2	3.3	3.3	3.5	3.5	3.5	2.5	2.1
Electrical machinery	3.2	2.9	3.1	3.3	4.6	4.2	3.4	4.5	3.5	3.1	3.6	3.3	3.3	2.8	3.0
Transportation equipment	5.0	11.8	3.3	3.6	4.8	4.4	3.5	4.5	3.5	3.9	4.1	3.2	3.7	4.0	3.7
Instruments and related products	1.9	1.4	2.2	2.5	3.1	2.8	2.1	3.7	2.5	2.5	2.7	2.3	2.3	1.8	2.1
Miscellaneous manufacturing	5.1	2.6	2.8	4.7	6.3	6.8	5.4	5.2	4.5	4.9	5.1	4.7	5.1	4.0	4.4
Nondurable goods [4]	2.8	2.1	2.6	2.9	3.5	3.6	3.4	4.3	3.4	3.1	3.0	2.8	3.0	2.7	2.9
Food and kindred products	3.3	2.7	3.8	3.9	4.5	4.3	4.2	5.5	4.7	3.9	3.8	3.6	3.9	3.5	3.8
Tobacco manufactures	1.5	.6	1.1	1.9	2.5	2.2	3.7	2.1	1.6	1.3	1.5	1.7	1.8	1.6	2.3
Textile-mill products	3.1	2.1	2.5	3.0	3.5	3.9	3.6	4.0	3.2	3.4	3.1	3.0	3.0	3.0	2.9
Apparel and other finished textile products	3.8	2.2	3.1	4.1	5.0	5.6	5.0	4.6	4.7	4.2	3.9	3.8	4.0	3.4	3.5
Paper and allied products	2.2	1.7	1.8	2.2	3.0	2.9	2.8	4.3	2.8	2.6	2.4	2.2	2.2	2.1	2.4
Chemicals and allied products	1.5	1.2	1.3	1.6	1.8	1.9	1.9	3.3	2.0	1.8	1.8	1.4	1.5	1.3	1.7
Products of petroleum and coal	.5	.4	.5	.7	1.0	.8	.8	1.9	1.0	1.3	2.0	.9	.9	.7	1.1
Rubber products	2.8	2.0	1.8	2.4	3.2	3.3	2.4	3.7	3.0	2.5	2.4	2.4	2.7	2.6	2.2
Leather and leather products	4.0	3.6	4.7	3.5	4.0	4.0	4.5	5.6	4.2	4.0	3.3	3.5	4.2	3.3	4.0
Nonmanufacturing:															
Metal mining	2.4	2.9	2.1	2.7	1.8	2.2	2.3	3.4	2.9	3.9	3.1	2.0	3.6	2.6	2.5
Anthracite mining	1.7	.9	1.8	2.4	2.1	.5	1.5	1.0	1.9	1.6	3.3	.9	1.6	1.6	1.3
Bituminous coal mining	2.4	4.1	8.8	1.5	2.1	2.0	1.4	.9	1.7	.8	1.3	1.2	1.2	1.2	.9
	Accessions: New hires														
Manufacturing	1.8	1.3	1.5	2.0	2.6	2.5	2.2	3.0	2.2	2.0	1.9	1.7	1.5	1.3	1.8
Durable goods	1.9	1.3	1.4	2.0	2.6	2.5	2.2	3.0	2.2	2.0	2.0	1.7	1.6	1.3	1.8
Ordnance and accessories	1.7	1.5	2.1	2.1	2.2	2.3	2.1	3.0	1.4	1.5	1.9	1.6	1.6	1.7	1.5
Lumber and wood products	2.1	1.7	2.3	2.9	4.1	4.1	4.4	6.2	6.3	4.3	3.4	2.3	2.5	2.7	2.9
Furniture and fixtures	2.2	1.5	2.0	3.0	4.0	4.3	3.8	3.4	2.6	2.2	2.4	1.8	2.0	1.7	2.2
Stone, clay, and glass products	1.1	.8	1.0	2.0	1.8	2.2	2.0	3.3	2.1	1.7	1.6	1.2	1.4	.9	1.5
Primary metal industries	1.5	1.0	.9	1.2	1.6	1.5	1.0	1.9	1.8	2.0	2.2	1.9	1.3	.5	.9
Fabricated metal products	2.4	1.8	1.4	1.8	2.7	2.9	2.2	3.0	2.2	2.3	2.1	1.6	1.4	1.4	2.1
Machinery (except electrical)	1.7	1.1	1.3	1.6	2.0	2.0	1.8	2.8	2.1	2.0	2.0	1.8	1.6	.9	1.4
Electrical machinery	1.7	1.4	1.8	2.5	3.3	3.0	2.3	3.0	2.0	1.7	2.0	1.8	1.8	1.4	1.9
Transportation equipment	2.1	1.5	.9	1.6	1.8	1.4	1.6	2.2	1.4	1.5	1.5	1.2	1.2	1.3	1.9
Instruments and related products	1.3	1.1	1.5	2.0	2.6	2.1	1.8	3.2	2.0	1.9	1.8	1.6	1.5	.9	1.6
Miscellaneous manufacturing	2.6	1.4	1.9	3.5	4.9	5.2	3.8	3.6	2.7	2.4	2.1	2.0	2.0	1.9	2.6
Nondurable goods [4]	1.7	1.2	1.5	2.0	2.5	2.6	2.4	3.0	2.1	1.9	1.8	1.5	1.5	1.3	1.8
Food and kindred products	1.6	1.1	1.9	2.3	2.6	2.5	2.4	3.1	2.3	1.6	1.4	1.2	1.2	1.5	2.0
Tobacco manufactures	.8	.3	.7	1.2	1.8	1.3	1.8	1.3	.9	.8	.8	.8	.9	.8	1.3
Textile-mill products	1.6	1.2	1.5	2.0	2.6	2.8	2.7	2.7	2.2	2.2	1.9	1.7	1.6	1.5	1.7
Apparel and other finished textile products	2.7	1.5	2.3	3.0	3.9	4.3	3.7	3.2	2.9	3.2	2.9	2.7	2.6	1.8	2.4
Paper and allied products	1.5	1.0	1.3	1.8	2.4	2.3	2.1	3.4	2.1	1.8	1.6	1.3	1.2	1.3	1.8
Chemicals and allied products	1.0	.7	.9	1.3	1.4	1.5	1.5	2.6	1.3	1.1	1.1	.9	.9	.8	1.3
Products of petroleum and coal	.3	.2	.3	.6	.7	.6	.7	1.4	.7	.6	1.2	.3	.3	.2	.9
Rubber products	1.5	.9	1.0	1.7	2.5	2.3	1.8	2.5	1.5	1.5	1.6	1.4	1.4	.8	1.3
Leather and leather products	2.8	1.9	2.0	2.1	2.6	2.8	3.4	4.1	2.6	2.5	2.0	2.3	2.6	1.7	2.4
Nonmanufacturing:															
Metal mining	1.5	1.1	1.1	1.5	1.3	1.7	1.3	1.9	1.4	1.5	1.3	.9	1.2	.7	1.5
Anthracite mining	.1	.5	1.2	1.0	.1	(5)	(5)	(5)	.1	.2	(5)	(5)	.2	.4	.8
Bituminous coal mining	.4	.3	.5	.6	.5	.6	.4	.2	.4	.3	.3	.2	.3	.3	.5

See footnotes at end of table.

TABLE B–1. Labor turnover rates, by major industry group [1]—Continued

[Per 100 employees]

Major industry group	1960	1959												Annual average	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1958	1957
Separations: Total [2]															
Manufacturing	2.8	3.1	4.1	4.7	4.3	3.7	3.3	2.8	2.9	3.0	2.8	2.6	3.1	3.6	3.6
Durable goods	2.8	3.1	4.5	5.3	4.4	3.9	3.5	3.0	2.9	3.0	2.8	2.7	3.2	3.9	3.7
Ordnance and accessories	2.2	1.4	1.7	2.3	3.3	2.2	1.8	2.3	2.3	2.4	2.4	2.5	3.2	2.9	3.6
Lumber and wood products	3.4	4.6	5.1	5.0	5.9	6.0	4.9	3.8	4.2	4.7	4.3	3.2	3.6	4.2	5.0
Furniture and fixtures	4.0	3.1	3.5	4.8	5.5	4.3	4.0	3.3	3.4	3.2	2.9	2.8	3.0	3.7	4.0
Stone, clay, and glass products	2.8	2.9	2.7	3.4	4.5	3.4	3.1	2.4	2.1	2.9	2.1	2.0	2.3	3.5	3.9
Primary metal industries	1.8	2.0	2.5	3.3	3.5	2.5	2.2	2.1	1.8	1.8	1.8	1.7	1.9	2.3	2.7
Fabricated metal products	3.2	3.0	5.6	9.1	4.8	4.4	4.2	3.7	3.3	3.5	3.2	3.3	4.0	4.3	4.0
Machinery (except electrical)	2.2	2.3	3.0	3.7	3.7	2.7	2.7	2.4	2.5	2.4	2.1	2.0	2.4	2.8	3.1
Electrical machinery	3.0	2.7	2.8	3.4	3.7	2.8	2.7	2.5	2.7	2.5	2.8	2.6	2.8	3.1	3.4
Transportation equipment	3.0	3.8	9.5	8.9	5.0	6.0	5.0	3.8	3.8	4.1	3.9	3.8	4.6	5.1	4.6
Instruments and related products	1.7	2.0	2.1	2.9	3.1	2.3	1.7	2.4	1.8	1.7	1.5	1.6	1.8	2.4	2.4
Miscellaneous manufacturing	3.9	7.9	6.6	5.1	5.6	4.3	3.8	3.3	4.2	4.2	3.6	3.6	3.8	4.7	5.0
Nondurable goods [4]	2.9	2.9	3.2	3.5	4.1	3.4	2.9	2.6	2.8	2.9	2.7	2.5	2.9	3.0	3.2
Food and kindred products	3.6	4.1	4.4	4.9	5.3	4.0	3.5	3.3	3.3	3.5	3.8	3.8	4.4	3.8	4.1
Tobacco manufactures	2.9	1.9	1.3	1.7	2.1	1.9	2.7	1.6	2.0	2.1	1.6	1.8	2.1	2.1	2.6
Textile-mill products	3.2	3.3	3.3	4.0	4.1	3.7	3.2	2.8	3.5	3.2	2.8	2.5	3.0	3.4	3.7
Apparel and other finished textile products	3.7	3.3	3.8	4.0	4.8	4.6	4.0	3.3	3.7	4.1	3.3	3.0	3.4	3.8	3.8
Paper and allied products	2.6	2.4	2.6	2.8	4.1	3.2	2.4	2.4	2.2	2.2	1.9	1.9	2.7	2.4	2.7
Chemicals and allied products	1.5	1.5	1.6	1.7	2.7	1.8	1.3	1.3	1.4	1.3	1.4	1.2	1.5	1.8	1.8
Products of petroleum and coal	1.4	1.0	1.3	1.1	1.7	1.1	1.3	1.0	.8	.9	1.4	.7	1.0	1.3	1.4
Rubber products	2.7	2.7	3.6	2.7	3.0	2.5	2.3	2.2	2.4	2.4	2.1	2.0	2.0	2.7	2.6
Leather and leather products	3.5	3.3	3.8	5.2	5.2	4.7	3.9	3.6	3.6	3.9	3.3	2.7	3.1	3.7	4.2
Nonmanufacturing:															
Metal mining	1.6	2.2	2.2	1.8	4.3	2.7	2.6	2.7	2.8	2.9	2.8	1.7	2.9	2.9	3.7
Anthracite mining	2.2	.7	2.5	1.3	1.7	1.7	5.7	3.2	4.4	2.1	3.8	3.2	4.4	4.3	2.4
Bituminous coal mining	1.6	1.7	2.1	1.4	1.8	19.6	4.0	2.2	2.5	2.6	2.6	2.2	1.7	2.5	1.6
Separations: Quits															
Manufacturing	1.0	0.9	1.0	1.4	2.2	1.8	1.3	1.3	1.3	1.1	1.0	0.8	0.9	0.9	1.4
Durable goods	.9	.8	.9	1.3	2.1	1.6	1.2	1.2	1.2	1.1	.9	.8	.8	.8	1.3
Ordnance and accessories	1.0	.7	.7	1.0	1.9	1.4	1.1	1.0	1.0	1.0	1.0	.9	1.0	.8	1.1
Lumber and wood products	1.3	1.4	1.8	2.4	4.3	3.6	2.7	2.5	2.6	2.2	1.7	1.2	1.4	1.7	2.2
Furniture and fixtures	1.4	1.0	1.3	2.0	2.9	2.6	1.9	1.6	1.7	1.7	1.3	1.1	1.2	1.1	1.6
Stone, clay, and glass products	.7	.5	.7	1.0	1.8	1.6	1.0	1.0	1.0	.8	.7	.5	.6	.7	1.1
Primary metal industries	.6	.7	.8	.7	1.3	1.0	.7	.8	.7	.7	.6	.5	.4	.4	.8
Fabricated metal products	1.0	.7	.8	1.1	1.9	1.6	1.1	1.2	1.1	1.1	.9	.7	.7	.8	1.3
Machinery (except electrical)	.7	.6	.7	.9	1.6	1.2	.9	1.0	1.0	1.0	.8	.7	.7	.6	1.0
Electrical machinery	1.1	1.0	1.1	1.4	2.3	1.7	1.2	1.2	1.2	1.1	1.0	.9	1.0	.9	1.5
Transportation equipment	.8	.7	.7	1.0	1.5	1.1	1.0	1.1	1.0	1.0	.8	.7	.8	.8	1.3
Instruments and related products	.7	.7	.8	1.4	2.0	1.4	.9	1.1	.9	.9	.7	.8	.8	.7	1.1
Miscellaneous manufacturing	1.4	1.1	1.5	2.4	3.5	2.6	1.9	1.6	1.7	1.5	1.1	1.2	1.2	1.2	1.8
Nondurable goods [4]	1.2	1.0	1.2	1.5	2.5	2.1	1.6	1.4	1.4	1.3	1.1	1.0	1.0	1.0	1.5
Food and kindred products	1.0	.8	1.0	1.4	2.3	1.8	1.2	1.2	1.1	.9	.8	.7	.8	.9	1.3
Tobacco manufactures	1.2	.7	.8	1.2	1.5	1.4	1.6	1.1	1.1	1.1	1.0	.9	1.1	.9	1.4
Textile-mill products	1.4	1.1	1.4	1.8	2.6	2.4	1.9	1.6	1.6	1.6	1.3	1.2	1.2	1.2	1.6
Apparel and other finished textile products	2.1	1.8	2.2	2.8	3.6	3.5	2.9	2.3	2.5	2.2	2.1	1.9	1.9	1.7	2.3
Paper and allied products	.8	.7	.9	1.2	2.7	1.8	1.1	1.2	1.1	.9	.8	.7	.8	.8	1.3
Chemicals and allied products	.6	.4	.5	.7	1.7	1.0	.7	.7	.6	.5	.5	.4	.5	.5	.9
Products of petroleum and coal	.3	.2	.3	.4	1.0	.5	.3	.3	.3	.3	.3	.2	.2	.3	.5
Rubber products	.9	.7	.7	1.0	1.6	1.3	.9	1.1	1.0	.9	.7	.6	.6	.6	1.0
Leather and leather products	1.9	1.4	1.7	2.0	3.0	3.1	2.6	2.5	2.1	2.0	1.6	1.5	1.6	1.5	2.2
Nonmanufacturing:															
Metal mining	.9	1.0	.9	1.0	2.2	1.4	1.7	1.2	2.1	1.5	1.1	.9	1.3	1.2	2.1
Anthracite mining	(3)	.2	.2	.4	.5	.6	.1	.5	.4	.1	(3)	.2	.3	.5	.8
Bituminous coal mining	.3	.3	.4	.5	.6	.4	.3	.2	.3	.2	.2	.2	.2	.3	.4

See footnotes at end of table.

TABLE B–1. Labor turnover rates, by major industry group [1]—Continued

[Per 100 employees]

Major industry group	1960	1959												Annual average	
	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1958	1957
	Separations: Layoffs														
Manufacturing	1.3	1.7	2.6	2.8	1.5	1.4	1.4	1.0	1.1	1.3	1.3	1.3	1.7	2.3	1.7
Durable goods	1.3	1.8	3.1	3.5	1.6	1.6	1.7	1.1	1.2	1.3	1.4	1.4	1.8	2.6	1.9
Ordnance and accessories	.7	.4	.7	.8	.6	.3	.3	.7	.7	.8	.7	1.1	1.6	1.8	2.2
Lumber and wood products	1.7	2.7	2.7	1.9	1.0	1.7	1.5	.7	.9	1.8	1.9	1.5	1.7	2.1	2.3
Furniture and fixtures	2.0	1.6	1.7	2.1	1.8	1.0	1.4	1.1	1.2	1.0	1.1	1.3	1.3	2.2	1.9
Stone, clay, and glass products	1.6	2.1	1.6	1.9	2.1	1.2	1.6	.7	.6	.8	.9	1.2	2.2	2.5	1.6
Primary metal industries	.7	.9	1.3	2.1	1.6	.9	1.1	.7	.5	.6	.6	.7	1.0	2.6	1.6
Fabricated metal products	1.6	1.8	4.3	7.3	2.2	2.2	2.5	1.8	1.5	1.8	1.8	1.9	2.7	3.1	2.1
Machinery (except electrical)	.9	1.1	1.9	2.2	1.5	.9	1.3	.9	1.0	.8	.8	.8	1.2	2.4	1.6
Electrical machinery	1.1	1.1	1.0	1.3	.6	.5	.9	.6	.8	.8	1.1	1.0	1.0	1.8	1.4
Transportation equipment	1.6	2.5	8.2	7.3	2.6	4.1	3.3	2.1	2.1	2.5	2.5	2.5	3.1	3.8	2.6
Instruments and related products	.6	.9	.9	1.0	.6	.5	.5	.9	.6	.5	.4	.4	.6	1.3	1.0
Miscellaneous manufacturing	1.9	6.4	4.7	2.0	1.3	.9	1.2	1.1	1.9	2.1	2.0	2.0	2.1	3.1	2.7
Nondurable goods [4]	1.3	1.6	1.6	1.5	1.1	.8	.9	.8	1.0	1.2	1.2	1.1	1.4	1.7	1.4
Food and kindred products	2.2	3.0	3.0	3.0	2.4	1.7	1.8	1.7	1.9	2.1	2.7	2.7	2.8	2.5	2.4
Tobacco manufactures	1.5	.9	.3	.1	.2	.2	.7	.2	.5	.8	.3	.5	.7	.9	.9
Textile-mill products	1.3	1.7	1.5	1.6	1.0	.8	.8	.7	1.4	1.1	1.0	1.0	1.4	1.8	1.7
Apparel and other finished textile products	1.0	1.1	1.1	.6	.8	.6	.6	.6	.8	1.4	.8	.8	1.2	1.8	1.3
Paper and allied products	1.2	1.2	1.2	1.1	.6	.8	.7	.7	.6	.8	.7	.9	1.4	1.3	1.0
Chemicals and allied products	.6	.7	.8	.6	.5	.3	.3	.2	.3	.4	.5	.5	.6	1.0	.6
Products of petroleum and coal	.8	.4	.7	.5	.3	.2	.6	.2	.2	.2	.7	.1	.3	.6	.5
Rubber products	1.4	1.7	2.5	1.2	.9	.7	.9	.7	1.0	1.0	1.0	.9	1.0	1.8	1.1
Leather and leather products	1.1	1.3	1.4	2.6	1.5	.9	.7	.8	.9	1.5	1.3	.9	1.0	1.8	1.2
Nonmanufacturing:	.1	.4													
Metal mining	.9	(5)	.9	.3	1.6	.8	.2	.7	.1	.3	.8	.3	.9	2.2	1.0
Anthracite mining	.9	1.1	1.8	.3	.3	(5)	4.8	1.9	2.7	.7	2.5	2.0	3.6	3.7	1.4
Bituminous coal mining			1.5	.7	.8	18.9	3.3	1.8	2.0	2.1	2.0	1.5	1.1	2.0	1.0

[1] Month-to-month changes in total employment in manufacturing and nonmanufacturing industries as indicated by labor turnover rates are not comparable with the changes shown by the Bureau's employment series for the following reasons:

(1) The labor turnover series measures changes during the calendar month, while the employment series measures changes from midmonth to midmonth;

(2) Industry coverage is not identical, as the printing and publishing industry and some seasonal industries are excluded from turnover;

(3) Turnover rates tend to be understated because small firms are not as prominent in the turnover sample as in the employment sample; and

(4) Reports from plants affected by work stoppages are excluded from the turnover series, but the employment series reflects the influence of such stoppages.

[2] Preliminary.

[3] Beginning with January 1959, transfers between establishments of the same firm are included in total accessions and total separations; therefore, rates for these items are not strictly comparable with prior data. Transfers comprise part of other accessions and other separations, the rates for which are not shown separately.

[4] Excludes the printing, publishing, and allied industries group, and the following industries: Canning and preserving; women's, misses', and children's outerwear; and fertilizer.

[5] Less than 0.05.

C.—Earnings and Hours

TABLE C–1. Gross hours and earnings of production workers,[1] by industry

Industry	1960	1959												Annual average	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1958	1957
Average weekly earnings															
Mining	$111.11	$114.51	$109.89	$108.92	$107.45	$108.77	$103.49	$111.49	$108.94	$108.27	$106.13	$106.00	$103.86	$100.10	$102.21
Metal	113.03	111.41	108.84	99.38	99.29	97.71	93.14	107.79	106.86	102.94	104.23	104.45	103.94	96.22	98.74
Iron	123.26	118.98	119.00	86.34	90.19	95.84	84.10	116.18	113.83	104.60	106.11	107.45	106.59	100.27	103.49
Copper	110.56	110.32	105.64	110.53	99.46	96.75	100.85	106.60	108.03	108.79	110.56	108.86	106.82	94.62	97.73
Lead and zinc	94.39	94.58	93.20	92.39	94.85	92.89	89.24	91.66	87.75	86.08	87.64	90.17	91.43	85.93	88.97
Anthracite	88.09	94.73	93.84	82.80	88.36	76.73	79.20	82.75	83.45	88.55	76.45	74.79	91.24	76.01	81.79
Bituminous coal	126.67	135.38	118.14	123.55	115.81	120.74	104.98	126.49	120.01	114.75	112.20	112.85	114.71	102.38	110.83
Crude-petroleum and natural-gas production:															
Petroleum and natural-gas production (except contract services)	117.16	113.81	117.83	113.12	116.72	118.75	117.31	112.86	112.84	113.00	115.36	116.33	111.92	109.75	108.75
Nonmetallic mining and quarrying	91.74	96.13	95.90	97.90	99.01	100.33	98.32	98.08	98.25	94.80	90.31	88.82	87.98	89.63	87.80
Contract construction	112.73	117.81	113.88	117.66	115.66	119.88	116.56	116.66	114.82	113.89	110.87	108.64	111.03	110.47	106.64
Nonbuilding construction	106.31	113.47	110.87	117.74	112.58	121.26	118.30	117.46	112.06	110.28	108.23	100.19	105.88	109.47	105.07
Highway and street construction	96.89	103.88	104.80	113.03	109.62	119.71	115.44	113.88	106.55	103.28	98.21	85.40	93.59	104.14	98.66
Other nonbuilding construction	112.78	120.87	116.74	123.01	116.35	123.07	121.29	120.77	118.00	116.61	115.84	109.82	114.55	114.26	110.15
Building construction	113.88	119.13	114.14	117.72	116.71	119.19	116.16	116.66	115.39	114.44	110.95	108.12	111.65	110.67	106.86
General contractors	103.97	108.78	103.93	109.85	107.87	110.70	107.15	108.19	106.36	106.07	103.19	100.25	103.01	102.53	98.89
Special-trade contractors	119.03	124.53	120.04	122.38	121.70	123.98	120.88	121.81	120.82	119.13	115.15	112.20	116.86	115.28	112.17
Plumbing and heating	129.11	133.32	129.08	130.79	126.29	131.45	129.96	128.78	129.12	127.72	125.33	123.28	127.64	123.23	118.87
Painting and decorating	111.56	115.87	113.86	115.17	116.47	117.00	114.95	114.52	113.60	111.97	109.07	104.63	107.52	107.95	103.75
Electrical work	145.92	148.19	142.51	144.38	138.75	144.71	145.08	143.91	141.64	141.64	138.65	137.58	139.41	135.97	132.10
Other special-trade contractors	111.20	118.27	113.23	116.49	117.51	118.70	114.37	116.28	115.31	112.70	106.88	102.72	108.54	109.31	106.30
Average weekly hours															
Mining	40.7	42.1	40.7	41.1	40.7	41.2	39.2	41.6	40.8	40.1	39.9	39.7	40.1	39.1	40.4
Metal	42.5	42.2	41.7	40.4	40.2	39.4	36.1	41.3	41.1	39.9	40.4	40.8	40.6	38.8	40.8
Iron	42.8	41.6	41.9	30.4	31.1	32.6	28.9	40.2	39.8	38.7	37.1	37.7	37.4	36.2	39.5
Copper	43.7	45.4	44.2	45.3	41.1	38.7	40.5	42.3	42.7	43.0	43.7	43.2	42.9	39.1	40.9
Lead and zinc	41.0	41.3	40.7	40.7	41.6	41.1	38.8	40.2	39.0	38.6	39.3	40.8	41.0	39.6	41.0
Anthracite	31.8	34.2	34.0	30.0	31.9	27.9	-------	30.2	31.3	32.2	27.6	27.0	34.3	28.9	31.1
Bituminous coal	38.5	40.9	35.8	37.9	35.2	36.7	32.5	38.8	36.7	35.2	35.2	35.6	36.3	33.9	36.6
Crude-petroleum and natural-gas production:															
Petroleum and natural gas production (except contract services)	41.4	40.5	41.2	40.4	41.1	40.9	41.6	40.2	40.3	40.5	41.2	41.4	41.3	40.8	40.9
Nonmetallic mining and quarrying	41.7	43.3	43.2	44.3	44.6	45.4	45.1	45.2	44.3	44.3	42.4	41.7	41.5	43.3	43.9
Contract construction	34.9	36.7	35.7	37.0	36.6	38.3	37.6	38.0	37.4	37.0	35.9	34.4	35.7	36.7	36.9
Nonbuilding construction	37.3	39.4	38.9	40.6	39.5	43.0	42.1	42.1	40.6	40.1	39.5	36.3	38.5	40.1	39.8
Highway and street construction	37.7	39.2	39.4	41.1	40.6	44.5	43.4	43.3	41.3	40.5	39.6	35.0	38.2	41.0	40.6
Other nonbuilding construction	37.1	39.5	38.4	40.2	38.4	41.3	40.7	40.8	40.0	39.8	39.4	37.1	38.7	39.4	39.2
Building construction	34.3	36.1	34.8	36.0	35.8	36.9	36.3	36.8	36.4	36.1	35.0	34.0	35.0	35.7	36.1
General contractors	34.2	35.9	34.3	35.9	35.6	36.9	36.2	36.8	36.3	36.2	35.1	34.1	34.8	35.6	35.7
Special-trade contractors	34.5	36.2	35.1	36.1	35.9	36.9	36.3	36.8	36.5	36.1	35.0	34.0	35.2	35.8	36.3
Plumbing and heating	37.1	38.2	37.2	37.8	36.5	38.1	38.0	38.1	38.2	37.9	37.3	36.8	38.1	37.8	38.1
Painting and decorating	33.4	34.9	34.4	34.9	35.4	36.0	35.7	35.9	35.5	35.1	34.3	32.8	33.6	34.6	34.7
Electrical work	38.4	39.1	37.8	38.5	37.0	38.9	39.0	39.0	38.7	38.7	38.3	37.9	38.3	38.3	39.2
Other special-trade contractors	32.9	35.2	33.9	35.3	35.5	36.3	35.3	36.0	35.7	35.0	33.4	32.0	33.5	34.7	35.2
Average hourly earnings															
Mining	$2.73	$2.72	$2.70	$2.65	$2.64	$2.64	$2.64	$2.68	$2.67	$2.65	$2.66	$2.67	$2.64	$2.56	$2.53
Metal	2.66	2.64	2.61	2.46	2.47	2.48	2.58	2.61	2.60	2.58	2.58	2.56	2.56	2.48	2.42
Iron	2.88	2.86	2.84	2.84	2.90	2.94	2.91	2.89	2.86	2.85	2.86	2.85	2.85	2.77	2.62
Copper	2.53	2.43	2.39	2.44	2.42	2.50	2.49	2.52	2.53	2.53	2.53	2.52	2.49	2.43	2.39
Lead and zinc	2.30	2.29	2.29	2.27	2.28	2.26	2.30	2.28	2.25	2.23	2.23	2.21	2.23	2.17	2.17
Anthracite	2.77	2.77	2.76	2.76	2.77	2.75	-------	2.74	2.73	2.75	2.77	2.77	2.66	2.63	2.63
Bituminous coal	3.29	3.31	3.30	3.26	3.29	3.29	3.23	3.26	3.27	3.26	3.19	3.17	3.16	3.02	3.02
Crude-petroleum and natural-gas production:															
Petroleum and natural-gas production (except contract services)	2.83	2.81	2.86	2.80	2.84	2.83	2.82	2.80	2.80	2.79	2.80	2.81	2.71	2.69	2.61
Nonmetallic mining and quarrying	2.20	2.22	2.22	2.21	2.22	2.21	2.18	2.17	2.15	2.14	2.13	2.13	2.12	2.07	2.00
Contract construction	3.23	3.21	3.19	3.18	3.16	3.13	3.10	3.07	3.07	3.07	3.08	3.10	3.11	3.01	2.89
Nonbuilding construction	2.85	2.88	2.85	2.90	2.85	2.82	2.81	2.79	2.76	2.75	2.74	2.76	2.75	2.73	2.64
Highway and street construction	2.57	2.65	2.66	2.75	2.70	2.69	2.66	2.63	2.58	2.55	2.48	2.44	2.45	2.54	2.43
Other nonbuilding construction	3.04	3.06	3.04	3.06	3.03	2.98	2.98	2.96	2.95	2.93	2.94	2.96	2.96	2.90	2.81
Building construction	3.32	3.30	3.28	3.27	3.26	3.23	3.20	3.17	3.17	3.17	3.17	3.18	3.19	3.10	2.96
General contractors	3.04	3.03	3.03	3.06	3.03	3.00	2.96	2.94	2.93	2.93	2.94	2.94	2.96	2.88	2.77
Special-trade contractors	3.45	3.44	3.42	3.39	3.39	3.36	3.33	3.31	3.31	3.30	3.29	3.30	3.32	3.22	3.09
Plumbing and heating	3.48	3.49	3.47	3.46	3.46	3.45	3.42	3.38	3.38	3.37	3.36	3.35	3.35	3.26	3.13
Painting and decorating	3.34	3.32	3.31	3.30	3.29	3.25	3.22	3.19	3.20	3.19	3.18	3.19	3.20	3.12	2.99
Electrical work	3.80	3.79	3.77	3.75	3.75	3.72	3.72	3.69	3.66	3.66	3.62	3.63	3.64	3.55	3.37
Other special-trade contractors	3.38	3.36	3.34	3.30	3.31	3.27	3.24	3.23	3.23	3.22	3.20	3.21	3.24	3.18	3.02

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Industry	1960	1959												Annual average	
	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1958	1957
	Average weekly earnings														
Manufacturing	$92.29	$92.16	$88.98	$89.06	$89.47	$88.70	$89.65	$91.17	$90.32	$89.87	$89.24	$88.00	$87.38	$83.50	$82.39
Durable goods	100.86	99.87	95.44	96.52	96.70	95.88	96.80	99.36	98.64	97.75	97.10	95.11	94.94	90.06	88.66
Nondurable goods	80.77	81.19	80.39	79.79	80.79	80.20	80.00	79.60	79.40	79.00	79.00	78.01	77.81	75.27	73.51
Durable goods															
Ordnance and accessories	107.42	109.10	106.97	106.55	105.22	103.38	105.06	105.47	105.83	103.32	104.08	103.57	105.00	101.43	95.47
Lumber and wood products	77.62	80.40	80.60	82.42	82.62	82.61	80.19	82.19	80.56	78.96	77.74	74.26	74.84	75.41	72.04
Sawmills and planing mills	74.67	78.14	78.18	79.37	79.77	80.95	79.13	80.70	78.66	76.30	75.85	72.86	72.31	73.23	70.92
Millwork, plywood, and prefabricated structural wood products	81.90	83.42	83.82	84.86	83.43	86.11	83.85	85.90	86.11	85.08	83.43	81.81	81.41	79.38	75.60
Wooden containers	59.50	60.09	59.35	61.35	62.06	61.24	60.53	61.12	60.59	59.09	59.09	57.52	57.02	56.88	56.23
Miscellaneous wood products	66.58	67.32	67.08	67.40	66.42	67.07	66.74	66.74	66.74	66.17	66.08	64.80	65.37	63.52	61.56
Furniture and fixtures	74.93	77.33	75.21	76.49	75.58	76.31	74.66	74.66	72.76	72.40	73.12	72.32	72.54	70.31	70.00
Household furniture	70.12	73.92	72.21	73.85	72.04	72.56	71.34	70.64	69.37	69.20	69.83	69.43	69.26	66.76	66.63
Office, public-building, and professional furniture	88.40	88.83	82.99	86.11	86.11	89.25	87.57	85.90	84.24	83.22	82.61	82.21	82.21	79.79	78.99
Partitions, shelving, lockers, and fixtures	95.24	96.05	94.66	91.94	93.89	94.35	87.71	98.91	90.72	90.63	88.03	87.53	87.46	85.97	85.22
Screens, blinds, and miscellaneous furniture and fixtures	75.20	75.33	73.23	74.93	71.53	73.44	74.48	75.81	76.22	73.12	73.53	72.58	74.66	71.56	68.40
	Average weekly hours														
Manufacturing	40.3	40.6	39.9	40.3	40.3	40.5	40.2	40.7	40.5	40.3	40.2	40.0	39.9	39.2	39.8
Durable goods	41.0	41.1	40.1	40.9	40.8	40.8	40.5	41.4	41.1	40.9	40.8	40.3	40.4	39.5	40.3
Nondurable goods	39.4	39.8	39.6	39.5	39.8	40.1	39.8	39.8	39.7	39.5	39.5	39.4	39.3	38.8	39.1
Durable goods															
Ordnance and accessories	41.0	41.8	41.3	41.3	41.1	40.7	41.2	41.2	41.5	41.0	41.3	41.1	41.5	40.9	40.8
Lumber and wood products	39.4	40.2	40.1	40.8	40.7	41.1	40.5	41.3	41.1	40.7	40.7	39.5	39.6	39.9	39.8
Sawmills and planing mills	39.3	40.7	40.3	40.7	40.7	41.3	41.0	41.6	41.4	40.8	41.0	39.6	39.3	39.8	39.4
Millwork, plywood, and prefabricated structural wood products	39.8	40.3	40.3	40.8	40.5	41.6	40.9	41.7	41.8	41.5	41.1	40.7	40.5	40.5	40.0
Wooden containers	40.2	40.6	40.1	40.9	40.3	41.1	40.9	41.3	41.5	40.2	40.2	39.4	39.6	39.5	39.6
Miscellaneous wood products	40.6	40.8	40.9	41.1	40.5	41.4	41.2	41.2	41.2	41.1	41.3	40.5	40.6	40.2	40.5
Furniture and fixtures	40.5	41.8	41.1	41.8	41.3	41.7	40.8	40.8	40.2	40.0	40.4	40.4	40.3	39.5	40.0
Household furniture	40.3	42.0	41.5	42.2	41.4	41.7	41.0	40.6	40.1	40.0	40.6	40.6	40.5	39.5	39.9
Office, public-building, and professional furniture	41.5	41.9	39.9	41.4	41.2	42.5	41.7	41.1	40.5	40.4	40.1	40.3	40.1	39.5	40.3
Partitions, shelving, lockers, and fixtures	40.7	41.4	40.8	40.5	41.0	41.2	38.3	41.7	40.5	40.1	39.3	38.9	38.7	38.9	40.2
Screens, blinds, and miscellaneous furniture and fixtures	40.0	40.5	39.8	40.5	39.3	40.8	40.7	41.2	41.2	40.4	40.4	40.1	40.8	40.2	40.0
	Average hourly earnings														
Manufacturing	$2.29	$2.27	$2.23	$2.21	$2.22	$2.19	$2.23	$2.24	$2.23	$2.23	$2.22	$2.20	$2.19	$2.13	$2.07
Durable goods	2.46	2.43	2.38	2.36	2.37	2.35	2.39	2.40	2.40	2.39	2.38	2.36	2.35	2.28	2.20
Nondurable goods	2.05	2.04	2.03	2.02	2.03	2.00	2.01	2.00	2.00	2.00	2.00	1.98	1.98	1.94	1.88
Durable goods															
Ordnance and accessories	2.62	2.61	2.59	2.58	2.56	2.54	2.55	2.56	2.55	2.52	2.52	2.52	2.53	2.48	2.34
Lumber and wood products	1.97	2.00	2.01	2.02	2.03	2.01	1.98	1.99	1.96	1.94	1.91	1.88	1.89	1.89	1.81
Sawmills and planing mills	1.90	1.92	1.94	1.95	1.96	1.96	1.93	1.94	1.90	1.87	1.85	1.84	1.84	1.84	1.80
Millwork, plywood, and prefabricated structural wood products	2.06	2.07	2.08	2.08	2.06	2.07	2.05	2.06	2.06	2.05	2.03	2.01	2.01	1.96	1.89
Wooden containers	1.48	1.48	1.48	1.50	1.54	1.49	1.48	1.48	1.46	1.47	1.47	1.46	1.44	1.44	1.42
Miscellaneous wood products	1.64	1.65	1.64	1.64	1.64	1.62	1.62	1.62	1.62	1.61	1.60	1.60	1.61	1.58	1.52
Furniture and fixtures	1.85	1.85	1.83	1.83	1.83	1.83	1.83	1.83	1.81	1.81	1.81	1.79	1.80	1.78	1.75
Household furniture	1.74	1.76	1.74	1.75	1.74	1.74	1.74	1.74	1.73	1.73	1.72	1.71	1.71	1.69	1.67
Office, public-building, and professional furniture	2.13	2.12	2.08	2.08	2.09	2.10	2.10	2.09	2.08	2.06	2.06	2.04	2.05	2.02	1.96
Partitions, shelving, lockers, and fixtures	2.34	2.32	2.32	2.27	2.29	2.29	2.29	2.30	2.24	2.26	2.24	2.25	2.26	2.21	2.12
Screens, blinds, and miscellaneous furniture and fixtures	1.88	1.86	1.84	1.85	1.82	1.80	1.83	1.84	1.85	1.81	1.82	1.81	1.83	1.78	1.71

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,[1] by industry—Continued

Industry	1960	1959												Annual average	
	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1958	1957
Average weekly earnings															
Manufacturing—Continued															
Durable goods—Continued															
Stone, clay, and glass products	$90.90	$92.25	$91.39	$91.88	$91.43	$92.35	$92.13	$92.16	$91.94	$91.27	$90.20	$87.67	$86.83	$84.80	$83.03
Flat glass	124.71	127.39	127.88	130.00	133.34	125.76	131.99	134.94	131.24	131.97	132.70	135.20	136.75	113.10	114.62
Glass and glassware, pressed or blown	89.50	88.93	88.65	88.18	84.36	88.80	88.36	87.78	88.80	88.80	89.24	87.82	86.11	85.75	83.38
Glass products made of purchased glass	70.31	75.14	74.21	74.56	72.68	72.71	73.68	74.70	74.89	74.34	72.10	71.74	72.89	71.55	70.67
Cement, hydraulic	99.14	101.02	103.25	99.96	106.17	101.02	101.09	98.88	97.82	96.87	95.51	93.53	92.98	92.92	87.91
Structural clay products	80.00	82.21	81.61	80.99	80.80	82.19	82.19	81.77	81.58	80.39	78.79	77.03	75.66	75.25	74.61
Pottery and related products	80.46	82.60	80.98	81.87	80.35	81.24	78.44	79.80	79.38	78.17	79.25	78.87	77.17	73.24	73.48
Concrete, gypsum, and plaster products	89.04	91.14	90.93	93.73	94.13	95.82	95.37	95.55	94.05	91.91	88.99	85.48	85.67	86.43	82.75
Cut-stone and stone products	74.70	76.96	75.26	77.75	75.96	76.22	74.74	76.59	77.15	75.81	72.98	72.04	71.31	73.31	70.98
Miscellaneous nonmetallic mineral products	99.01	98.53	95.24	95.94	96.46	97.58	97.58	97.86	98.09	97.44	95.72	93.04	94.16	87.96	86.67
Primary metal industries	117.67	117.14	107.86	105.74	106.40	104.81	108.19	118.43	117.58	116.60	115.34	112.72	110.80	100.97	98.75
Blast furnaces, steel works, and rolling mills	127.92	127.72	113.10	116.66	118.73	113.09	111.29	129.38	127.10	127.10	125.36	122.00	120.08	108.00	104.79
Iron and steel foundries	100.19	99.29	94.28	96.14	96.14	96.16	98.49	101.02	100.94	98.42	97.53	95.28	94.80	85.93	87.64
Primary smelting and refining of nonferrous metals	107.57	105.86	108.92	108.53	111.90	104.82	105.26	104.86	104.81	104.55	103.89	103.06	105.16	99.05	95.82
Secondary smelting and refining of nonferrous metals	96.00	96.05	96.28	95.68	98.22	95.49	91.71	94.62	94.66	94.02	93.98	92.03	92.43	88.84	87.53
Rolling, drawing, and alloying of nonferrous metals	109.47	110.92	109.45	109.45	107.71	108.09	111.30	113.85	113.69	113.42	112.20	110.56	106.97	100.90	95.51
Nonferrous foundries	103.16	102.92	100.61	103.58	101.76	99.39	99.55	100.77	99.70	98.88	97.51	97.44	98.16	93.06	91.20
Miscellaneous primary metal industries	118.44	117.32	107.96	108.81	111.11	110.97	113.90	118.71	119.00	116.76	115.09	112.89	111.38	102.31	100.85
Average weekly hours															
Stone, clay, and glass products	40.4	41.0	40.8	41.2	41.0	41.6	41.5	41.7	41.6	41.3	41.0	40.4	40.2	40.0	40.5
Flat glass	40.1	40.7	40.5	41.4	42.6	40.7	41.9	42.3	41.4	41.5	41.6	41.6	42.6	38.6	40.5
Glass and glassware, pressed or blown	39.6	39.7	39.4	39.9	38.0	40.0	39.8	39.9	40.0	40.0	40.2	40.1	39.5	39.7	39.8
Glass products made of purchased glass	37.6	40.4	39.9	40.3	39.5	39.3	39.5	40.6	40.7	40.4	39.4	39.2	39.4	39.1	39.7
Cement, hydraulic	40.3	40.9	41.3	40.8	41.8	41.4	41.6	41.2	41.1	40.7	40.3	39.8	39.4	40.4	40.7
Structural clay products	39.8	40.7	40.6	40.7	40.4	41.3	41.3	41.3	41.2	40.6	40.2	39.5	39.2	39.4	39.9
Pottery and related products	37.6	38.6	38.2	38.8	37.9	38.5	37.0	38.0	37.8	37.4	38.1	38.1	37.1	35.9	37.3
Concrete, gypsum, and plaster products	42.4	43.4	43.3	44.0	44.4	45.2	45.2	45.3	45.0	44.4	43.2	41.9	42.2	43.0	43.1
Cut-stone and stone products	40.6	41.6	40.9	41.8	41.3	41.2	40.4	41.4	41.7	41.2	40.1	39.8	39.4	40.5	40.1
Miscellaneous nonmetallic mineral products	41.6	41.4	40.7	41.0	41.4	41.7	41.7	42.0	42.1	42.0	41.8	41.5	41.3	39.8	40.5
Primary metal industries	41.0	41.1	38.8	39.9	40.0	39.7	38.5	41.7	41.4	41.2	40.9	40.4	40.0	38.1	39.5
Blast furnaces, steel works, and rolling mills	41.0	41.2	37.7	38.0	38.3	36.6	35.9	41.6	41.0	41.0	40.7	40.0	39.5	37.5	39.1
Iron and steel foundries	40.4	40.2	38.8	39.4	39.4	39.9	40.7	41.4	41.2	40.5	40.3	39.7	39.5	37.2	39.3
Primary smelting and refining of nonferrous metals	40.9	40.1	41.1	40.8	41.6	40.2	40.8	40.8	41.1	41.0	40.9	41.2	41.4	40.1	40.6
Secondary smelting and refining of nonferrous metals	41.2	41.4	41.5	41.6	42.2	41.7	40.4	41.5	41.7	41.6	41.4	40.9	40.9	40.2	40.9
Rolling, drawing, and alloying of nonferrous metals	41.0	41.7	41.3	41.3	40.8	41.1	42.0	42.8	42.9	42.8	42.5	42.2	41.3	40.2	40.3
Nonferrous foundries	41.1	41.5	40.9	41.6	41.2	40.9	40.8	41.3	41.2	41.2	40.8	40.6	40.9	39.6	40.0
Miscellaneous primary metal industries	42.0	41.9	39.4	40.3	41.0	41.1	41.3	42.7	42.5	42.0	41.7	41.2	41.1	39.2	40.5
Average hourly earnings															
Stone, clay, and glass products	$2.25	$2.25	$2.24	$2.23	$2.23	$2.22	$2.22	$2.21	$2.21	$2.21	$2.20	$2.17	$2.16	$2.12	$2.05
Flat glass	3.11	3.13	3.15	3.14	3.13	3.09	3.15	3.19	3.17	3.18	3.19	3.25	3.21	2.93	2.83
Glass and glassware, pressed or blown	2.26	2.24	2.25	2.21	2.22	2.22	2.22	2.20	2.22	2.22	2.22	2.19	2.18	2.16	2.10
Glass products made of purchased glass	1.87	1.86	1.86	1.85	1.84	1.85	1.84	1.84	1.84	1.84	1.83	1.83	1.85	1.83	1.78
Cement, hydraulic	2.46	2.47	2.50	2.45	2.54	2.44	2.43	2.40	2.38	2.38	2.37	2.35	2.36	2.30	2.16
Structural clay products	2.01	2.02	2.01	1.99	2.00	1.99	1.99	1.98	1.98	1.98	1.96	1.95	1.93	1.91	1.87
Pottery and related products	2.14	2.14	2.12	2.11	2.12	2.11	2.12	2.10	2.10	2.09	2.08	2.07	2.08	2.04	1.97
Concrete, gypsum, and plaster products	2.10	2.10	2.10	2.13	2.12	2.12	2.11	2.11	2.09	2.07	2.06	2.04	2.03	2.01	1.92
Cut-stone and stone products	1.84	1.85	1.84	1.86	1.84	1.85	1.85	1.85	1.85	1.84	1.82	1.81	1.81	1.81	1.77
Miscellaneous nonmetallic mineral products	2.38	2.38	2.34	2.34	2.33	2.34	2.34	2.33	2.33	2.32	2.29	2.29	2.28	2.21	2.14
Primary metal industries	2.87	2.85	2.78	2.65	2.66	2.64	2.81	2.84	2.84	2.83	2.82	2.79	2.77	2.65	2.80
Blast furnaces, steel works, and rolling mills	3.12	3.10	3.00	3.07	3.10	3.09	3.10	3.11	3.10	3.10	3.08	3.05	3.04	2.88	2.68
Iron and steel foundries	2.48	2.47	2.43	2.44	2.44	2.41	2.42	2.44	2.45	2.43	2.42	2.40	2.40	2.31	2.23
Primary smelting and refining of nonferrous metals	2.63	2.64	2.65	2.66	2.69	2.60	2.58	2.57	2.55	2.55	2.54	2.55	2.54	2.47	2.38
Secondary smelting and refining of nonferrous metals	2.33	2.32	2.32	2.30	2.28	2.29	2.27	2.28	2.27	2.26	2.27	2.25	2.26	2.21	2.14
Rolling, drawing, and alloying of nonferrous metals	2.67	2.66	2.65	2.65	2.64	2.63	2.65	2.66	2.65	2.65	2.64	2.62	2.59	2.51	2.37
Nonferrous foundries	2.51	2.48	2.46	2.49	2.47	2.43	2.44	2.44	2.42	2.40	2.39	2.40	2.40	2.35	2.28
Miscellaneous primary metal industries	2.82	2.80	2.74	2.70	2.71	2.70	2.76	2.78	2.80	2.78	2.76	2.74	2.71	2.61	2.49

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Industry	1960	1959												Annual average	
	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1958	1957
Manufacturing—Continued															
Durable goods—Continued															
	Average weekly earnings														
Fabricated metal products	$100.53	$99.77	$94.64	$96.76	$99.66	$99.01	$97.17	$99.72	$98.36	$96.59	$95.88	$94.13	$93.96	$90.80	$88.94
Tin cans and other tinware	112.05	112.10	110.24	108.24	127.32	117.55	113.85	113.42	114.91	108.99	106.86	107.27	106.86	104.42	96.88
Cutlery, handtools, and hardware	96.05	96.79	88.91	91.02	93.71	92.03	92.25	93.34	92.05	90.98	91.62	91.21	91.62	86.15	85.65
Heating apparatus (except electric) and plumbers' supplies	91.41	92.34	90.02	92.63	92.00	94.25	92.29	93.43	91.88	90.97	91.43	91.66	89.60	87.91	83.95
Fabricated structural metal products	97.36	98.58	94.62	96.56	97.75	98.64	97.77	100.19	98.09	96.32	94.72	93.62	92.98	93.43	92.99
Metal stamping, coating, and engraving	110.94	107.70	99.14	103.07	106.25	107.00	102.75	105.15	103.32	101.99	100.77	97.36	97.51	92.63	90.13
Lighting fixtures	90.50	90.39	84.77	87.72	95.22	86.27	86.46	91.12	89.42	87.54	84.42	84.21	85.03	80.17	79.80
Fabricated wire products	93.34	93.83	89.95	89.01	88.80	86.30	86.40	92.60	92.60	91.08	89.54	87.67	88.75	83.74	82.21
Miscellaneous fabricated metal products	99.01	98.00	93.09	96.28	96.74	96.98	97.81	101.48	101.29	98.60	98.37	96.56	94.85	88.53	89.01
Machinery (except electrical)	105.57	105.92	102.82	103.82	103.16	102.34	103.25	104.75	104.00	103.09	102.42	100.61	99.31	94.25	94.30
Engines and turbines	114.09	112.48	110.16	109.76	109.88	110.95	108.81	112.44	112.56	111.83	111.41	107.98	107.53	102.26	99.55
Agricultural machinery and tractors	103.48	102.82	100.49	102.31	101.89	101.35	103.31	106.55	106.14	106.14	107.84	105.22	100.35	95.89	91.31
Construction and mining machinery	100.50	101.09	97.81	99.14	101.27	103.07	102.34	105.72	104.73	102.01	102.41	99.55	97.77	91.89	92.84
Metalworking machinery	118.64	118.48	115.72	115.02	113.10	113.21	114.33	115.83	115.45	114.75	112.56	110.39	106.90	101.38	106.57
Special-industry machinery (except metalworking machinery)	101.81	101.81	100.25	101.39	99.36	97.81	97.88	99.22	97.39	95.82	95.82	95.63	94.99	89.55	90.06
General industrial machinery	101.68	105.00	102.18	101.76	100.61	101.43	101.43	102.41	100.36	99.95	99.46	97.85	97.20	93.06	92.89
Office and store machines and devices	102.21	102.56	102.41	101.00	100.50	96.43	99.80	99.38	98.49	97.60	97.04	96.56	96.64	93.30	90.23
Service-industry and household machines	101.02	102.51	93.65	98.25	97.36	96.96	96.96	98.16	96.22	96.22	95.11	95.34	95.82	90.68	87.30
Miscellaneous machinery parts	102.59	102.67	99.88	101.84	102.67	100.86	102.83	103.81	102.90	101.99	100.85	98.16	98.40	92.73	91.62
	Average weekly hours														
Fabricated metal products	41.2	4.14	40.1	41.0	41.7	41.6	41.0	41.9	41.5	41.1	40.8	40.4	40.5	40.0	40.8
Tin cans and other tinware	41.5	42.3	41.6	41.0	45.8	43.7	42.8	42.8	43.2	41.6	41.1	41.1	41.1	41.6	41.4
Cutlery, handtools, and hardware	41.4	41.9	40.6	41.0	41.1	40.9	41.0	41.3	41.1	40.8	40.9	40.9	40.9	39.7	40.4
Heating apparatus (except electric) and plumbers' supplies	39.4	39.8	38.8	40.1	40.0	40.8	40.3	40.8	40.3	39.9	40.1	40.2	40.0	39.6	39.6
Fabricated structural metal products	39.9	40.4	39.1	40.4	40.9	41.1	40.4	41.4	40.7	40.3	39.8	39.5	39.4	40.1	41.7
Metal stamping, coating, and engraving	43.0	42.4	40.8	41.9	42.5	42.8	41.6	42.4	42.0	41.8	41.3	40.4	40.8	40.1	40.6
Lighting fixtures	40.4	40.9	39.8	40.8	42.7	40.5	40.4	41.8	41.4	41.1	40.2	40.1	40.3	39.3	39.7
Fabricated wire products	41.3	41.7	40.7	41.4	41.3	40.9	40.0	41.9	41.9	41.4	40.7	40.4	40.9	39.5	40.1
Miscellaneous fabricated metal products	41.6	41.7	40.3	41.5	41.7	41.8	41.8	43.0	43.1	42.5	42.4	41.8	41.6	39.7	41.4
Machinery (except electrical)	41.4	41.7	40.8	41.2	41.1	41.1	41.3	41.9	41.6	41.4	41.3	40.9	40.7	39.6	41.0
Engines and turbines	42.1	41.2	40.5	40.5	41.0	41.4	40.6	41.8	42.0	42.2	42.2	40.9	41.2	40.1	40.8
Agricultural machinery and tractors	39.8	39.7	38.8	39.5	39.8	39.9	40.2	41.3	41.3	41.3	41.8	41.1	40.3	39.5	39.7
Construction and mining machinery	40.2	40.6	39.6	40.3	41.0	41.9	41.6	42.8	42.4	41.3	41.8	40.8	40.4	39.1	40.9
Metalworking machinery	43.3	43.4	42.7	42.6	42.2	42.4	42.5	42.9	42.6	42.5	42.0	41.5	40.8	39.6	42.8
Special-industry machinery (except metalworking machinery)	42.6	42.6	42.3	42.6	42.1	41.8	41.7	42.4	41.8	41.3	41.3	41.4	41.3	39.8	41.5
General industrial machinery	41.0	42.0	41.2	41.2	40.9	41.4	41.4	41.8	41.3	41.3	41.1	40.6	40.5	39.6	41.1
Office and store machines and devices	40.4	40.7	40.8	40.4	40.2	39.2	40.9	40.4	40.2	40.0	40.1	39.9	40.1	39.7	40.1
Service-industry and household machines	40.9	41.5	38.7	40.6	40.4	40.4	40.4	40.9	40.6	40.6	40.3	40.4	40.6	39.6	39.5
Miscellaneous machinery parts	41.2	41.4	40.6	41.4	41.4	41.0	41.8	42.2	42.0	41.8	41.5	40.9	41.0	39.8	40.9
	Average hourly earnings														
Fabricated metal products	$2.44	$2.41	$2.36	$2.36	$2.39	$2.38	$2.37	$2.38	$2.37	$2.35	$2.35	$2.33	$2.32	$2.27	$2.18
Tin cans and other tinware	2.70	2.65	2.65	2.64	2.78	2.69	2.66	2.65	2.66	2.62	2.60	2.61	2.60	2.51	2.34
Cutlery, handtools, and hardware	2.32	2.31	2.19	2.22	2.28	2.25	2.25	2.26	2.24	2.23	2.24	2.23	2.24	2.17	2.12
Heating apparatus (except electric) and plumbers' supplies	2.32	2.32	2.32	2.31	2.30	2.31	2.29	2.29	2.28	2.28	2.28	2.28	2.24	2.22	2.12
Fabricated structural metal products	2.44	2.44	2.42	2.39	2.39	2.40	2.42	2.42	2.41	2.39	2.38	2.37	2.36	2.33	2.23
Metal stamping, coating, and engraving	2.58	2.54	2.43	2.46	2.50	2.50	2.47	2.48	2.46	2.44	2.44	2.41	2.39	2.31	2.22
Lighting fixtures	2.24	2.21	2.13	2.15	2.23	2.13	2.14	2.18	2.16	2.13	2.10	2.10	2.11	2.04	2.01
Fabricated wire products	2.26	2.25	2.21	2.15	2.15	2.11	2.16	2.21	2.21	2.20	2.20	2.17	2.17	2.12	2.05
Miscellaneous fabricated metal products	2.38	2.35	2.31	2.32	2.32	2.32	2.34	2.36	2.35	2.32	2.32	2.31	2.28	2.23	2.15
Machinery (except electrical)	2.55	2.54	2.52	2.52	2.51	2.49	2.50	2.50	2.50	2.49	2.48	2.46	2.44	2.38	2.30
Engines and turbines	2.71	2.73	2.72	2.71	2.68	2.68	2.68	2.69	2.68	2.65	2.64	2.64	2.61	2.55	2.44
Agricultural machinery and tractors	2.60	2.59	2.59	2.59	2.56	2.54	2.57	2.58	2.57	2.57	2.58	2.56	2.49	2.42	2.30
Construction and mining machinery	2.50	2.49	2.47	2.46	2.47	2.46	2.46	2.47	2.47	2.47	2.45	2.44	2.42	2.35	2.27
Metalworking machinery	2.74	2.73	2.71	2.70	2.68	2.67	2.69	2.70	2.71	2.70	2.68	2.66	2.62	2.56	2.49
Special-industry machinery (except metalworking machinery)	2.39	2.39	2.37	2.38	2.36	2.34	2.34	2.34	2.33	2.32	2.32	2.31	2.30	2.25	2.17
General industrial machinery	2.48	2.50	2.48	2.47	2.46	2.45	2.45	2.45	2.43	2.42	2.42	2.41	2.40	2.35	2.26
Office and store machines and devices	2.53	2.52	2.51	2.50	2.50	2.46	2.44	2.46	2.45	2.44	2.42	2.42	2.41	2.35	2.25
Service-industry and household machines	2.47	2.47	2.42	2.42	2.41	2.40	2.40	2.40	2.37	2.37	2.36	2.36	2.36	2.29	2.21
Miscellaneous machinery parts	2.49	2.48	2.46	2.46	2.48	2.46	2.46	2.46	2.45	2.44	2.43	2.40	2.40	2.33	2.24

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Industry	1960	1959												Annual average	
	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1958	1957
Manufacturing—Continued															
								Average weekly earnings							
Durable goods—Continued															
Electrical machinery	$92.80	$93.07	$90.72	$91.39	$90.76	$89.91	$89.02	$90.58	$89.51	$88.84	$89.06	$88.84	$88.88	$85.14	$83.01
Electrical generating, transmission, distribution, and industrial apparatus	96.46	97.88	95.18	94.30	94.13	94.19	94.60	96.00	94.25	93.15	92.92	92.20	92.06	89.72	88.70
Electrical appliances	91.41	91.03	89.55	91.48	89.67	88.48	89.04	89.27	87.53	88.43	88.82	87.30	89.55	85.36	83.10
Insulated wire and cable	87.14	88.15	85.70	85.08	86.30	84.46	86.94	89.24	88.41	87.78	87.36	87.99	89.03	86.11	85.08
Electrical equipment for vehicles	104.75	101.52	91.54	94.08	95.80	89.62	94.47	96.46	96.39	96.63	100.67	99.84	100.38	89.47	85.85
Electric lamps	80.91	91.24	92.77	93.21	89.19	86.48	83.95	85.84	88.37	87.31	86.05	86.48	86.48	80.57	76.62
Communication equipment	88.88	88.73	88.32	88.99	88.15	87.51	85.14	96.67	85.63	84.99	85.20	84.77	85.41	81.97	78.41
Miscellaneous electrical products	91.35	93.18	90.42	90.67	89.40	89.79	90.01	88.34	86.86	85.39	86.65	87.08	89.82	85.03	81.61
Transportation equipment	115.92	110.70	104.66	109.62	108.40	108.14	108.53	109.06	107.98	107.83	107.04	105.59	106.63	100.69	97.36
Motor vehicles and equipment	124.68	113.29	102.38	113.03	111.48	110.15	111.10	111.22	111.76	111.34	109.47	106.93	109.06	99.96	98.40
Aircraft and parts	108.81	109.88	108.00	108.26	107.06	107.18	106.78	107.98	105.71	105.67	105.01	105.67	105.52	101.91	96.76
Ship and boat building and repairing	98.02	102.44	101.26	99.20	99.84	102.57	102.70	100.74	101.91	101.77	102.18	99.97	102.44	98.00	94.88
Railroad equipment	114.05	109.69	102.65	103.47	106.70	110.12	111.38	113.42	105.60	109.30	107.17	104.23	103.09	100.70	109.80
Other transportation equipment	86.85	89.82	86.41	91.17	89.98	91.05	86.43	90.23	90.47	89.23	89.64	88.99	87.23	82.74	79.59
								Average weekly hours							
Electrical machinery	40.7	41.0	40.5	40.8	40.7	40.5	40.1	40.8	40.5	40.2	40.3	40.2	40.4	39.6	40.1
Electrical generating, transmission, distribution, and industrial apparatus	40.7	41.3	40.5	40.3	40.4	40.6	40.6	41.2	40.8	40.5	40.4	40.3	40.2	39.7	40.5
Electrical appliances	39.4	40.1	39.8	40.3	39.5	39.5	39.4	39.5	38.9	39.3	39.3	38.8	39.8	38.8	39.2
Insulated wire and cable	42.3	43.0	41.4	41.1	40.9	40.8	41.4	42.7	42.3	42.2	41.6	42.1	42.6	41.4	41.5
Electrical equipment for vehicles	41.9	41.1	38.3	39.2	40.0	38.3	40.2	40.7	40.5	40.6	41.6	41.6	42.0	38.9	39.2
Electric lamps	40.5	41.1	41.6	41.8	41.1	40.6	39.6	40.3	41.1	40.8	40.4	40.6	40.6	39.3	39.7
Communication equipment	40.4	40.7	40.7	41.2	41.0	40.7	39.6	40.5	40.2	39.9	40.0	39.8	40.1	39.6	39.8
Miscellaneous electrical products	40.6	41.6	41.1	41.4	41.2	41.0	41.1	40.9	40.4	39.9	40.3	40.5	41.2	40.3	40.4
Transportation equipment	42.0	40.7	39.2	40.6	40.0	40.2	40.8	41.0	40.9	41.0	40.7	40.3	40.7	39.8	40.4
Motor vehicles and equipment	43.9	40.9	38.2	41.1	40.1	40.2	41.3	41.5	41.7	41.7	41.0	40.2	41.0	39.2	40.0
Aircraft and parts	40.6	41.0	40.6	40.7	40.4	40.6	40.6	40.9	40.5	40.8	40.7	40.8	40.9	40.6	41.0
Ship and boat building and repairing	37.7	39.1	38.5	38.3	38.4	39.0	39.2	39.2	39.5	39.6	39.3	38.6	39.4	39.2	39.7
Railroad equipment	40.3	39.6	37.6	37.9	38.8	39.9	40.5	40.8	38.4	39.6	39.4	38.6	37.9	38.0	40.0
Other transportation equipment	39.3	40.1	39.1	40.7	40.9	41.2	40.2	41.2	41.5	41.5	41.5	41.2	40.2	39.4	39.4
								Average hourly earnings							
Electrical machinery	$2.28	$2.27	$2.24	$2.24	$2.23	$2.23	$2.22	$2.22	$2.21	$2.21	$2.21	$2.21	$2.20	$2.15	$2.07
Electrical generating, transmission, distribution, and industrial apparatus	2.37	2.37	2.35	2.34	2.33	2.32	2.33	2.33	2.31	2.30	2.30	2.29	2.29	2.26	2.19
Electrical appliances	2.32	2.27	2.25	2.27	2.27	2.24	2.26	2.26	2.25	2.25	2.26	2.25	2.25	2.20	2.12
Insulated wire and cable	2.06	2.05	2.07	2.07	2.11	2.07	2.10	2.09	2.09	2.08	2.10	2.09	2.09	2.08	2.05
Electrical equipment for vehicles	2.50	2.47	2.39	2.40	2.42	2.34	2.35	2.37	2.38	2.38	2.42	2.40	2.39	2.30	2.19
Electric lamps	2.22	2.22	2.23	2.23	2.17	2.13	2.12	2.13	2.15	2.14	2.13	2.13	2.13	2.05	1.98
Communication equipment	2.20	2.18	2.17	2.16	2.15	2.15	2.15	2.14	2.13	2.13	2.13	2.13	2.13	2.07	1.97
Miscellaneous electrical products	2.25	2.24	2.20	2.19	2.17	2.19	2.19	2.16	2.15	2.14	2.15	2.15	2.18	2.11	2.02
Transportation equipment	2.76	2.72	2.67	2.70	2.71	2.69	2.66	2.66	2.64	2.63	2.63	2.62	2.62	2.53	2.41
Motor vehicles and equipment	2.84	2.77	2.68	2.75	2.78	2.74	2.69	2.68	2.68	2.67	2.67	2.66	2.66	2.55	2.46
Aircraft and parts	2.68	2.68	2.66	2.66	2.65	2.64	2.63	2.64	2.61	2.59	2.58	2.59	2.58	2.51	2.36
Ship and boat building and repairing	2.60	2.62	2.63	2.59	2.60	2.63	2.62	2.57	2.58	2.57	2.60	2.59	2.60	2.50	2.39
Railroad equipment	2.83	2.77	2.73	2.73	2.75	2.76	2.75	2.78	2.75	2.76	2.72	2.70	2.72	2.65	2.52
Other transportation equipment	2.21	2.24	2.21	2.24	2.20	2.21	2.15	2.19	2.18	2.15	2.16	2.16	2.17	2.10	2.02

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,[1] by industry—Continued

Industry	1960	1959												Annual average	
	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1958	1957
Manufacturing—Continued															
Durable goods—Continued															
	Average weekly earnings														
Instruments and related products	$94.19	$96.23	$94.71	$94.53	$93.80	$93.48	$93.71	$94.35	$91.98	$92.21	$91.53	$91.13	$91.17	$87.38	$85.03
Laboratory, scientific, and engineering instruments	112.19	116.14	112.44	112.14	110.66	112.63	109.93	112.10	108.42	110.30	110.04	109.62	109.04	103.07	97.17
Mechanical measuring and controlling instruments	93.38	94.94	92.97	92.80	91.80	91.98	93.52	95.30	93.30	92.66	91.53	90.27	91.58	86.72	86.27
Optical instruments and lenses	95.76	97.48	92.57	95.68	95.63	93.84	93.30	90.05	90.35	88.29	88.48	89.76	88.70	88.51	85.22
Surgical, medical, and dental instruments	84.04	83.64	83.64	83.44	84.87	83.03	83.64	82.62	81.41	81.61	81.00	81.00	81.61	78.00	74.37
Ophthalmic goods	79.60	79.59	79.38	77.39	76.44	77.97	78.94	78.55	77.16	76.95	76.00	76.19	74.82	71.41	67.26
Photographic apparatus	105.01	109.65	108.20	107.43	105.98	104.55	105.32	105.32	103.63	102.47	101.96	102.47	100.37	97.53	94.60
Watches and clocks	77.81	77.41	78.80	80.57	79.77	79.15	77.01	77.42	75.46	76.22	75.65	76.02	76.61	73.71	72.15
Miscellaneous manufacturing industries	77.60	78.76	77.16	77.33	76.95	76.76	75.60	76.95	76.57	76.57	75.60	75.39	75.79	73.26	72.22
Jewelry, silverware, and plated ware	79.30	84.91	83.66	83.46	81.25	79.68	75.17	77.87	78.47	78.09	77.33	77.27	76.89	75.70	74.07
Musical instruments and parts	87.48	92.42	92.18	93.94	91.78	88.34	85.24	86.93	86.88	87.51	88.78	87.94	88.15	83.79	83.03
Toys and sporting goods	70.27	70.59	70.62	70.75	70.80	68.73	67.69	67.69	68.38	68.95	68.64	67.55	69.56	66.91	65.69
Pens, pencils, other office supplies	70.31	71.96	70.80	70.58	70.75	71.86	68.82	71.69	70.22	70.05	70.00	69.65	68.68	67.72	67.30
Costume jewelry, buttons, notions	69.70	69.48	68.64	69.87	70.58	69.30	66.39	70.88	70.35	69.43	67.20	67.15	65.57	65.18	65.07
Fabricated plastics products	83.22	83.83	82.39	83.40	83.00	83.00	83.40	83.82	83.20	81.97	81.36	82.35	83.20	79.17	78.31
Other manufacturing industries	81.00	81.20	78.41	78.79	78.41	79.99	79.79	81.00	79.40	79.20	78.41	78.01	78.80	76.04	74.64
	Average weekly hours														
Instruments and related products	40.6	41.3	41.0	41.1	41.0	41.0	41.1	41.2	40.7	40.8	40.5	40.5	40.7	39.9	40.3
Laboratory, scientific, and engineering instruments	41.4	42.7	41.8	42.0	41.6	42.5	41.8	42.3	41.7	42.1	42.0	42.0	42.1	40.9	41.0
Mechanical measuring and controlling instruments	40.6	41.1	40.6	40.7	40.8	40.7	41.2	41.8	41.1	41.0	40.5	40.3	40.7	39.6	40.5
Optical instruments and lenses	41.1	42.2	40.6	41.6	41.4	40.8	41.1	40.2	40.7	40.5	40.4	40.8	40.5	40.6	40.2
Surgical, medical, and dental instruments	40.6	40.8	40.6	40.7	41.2	40.5	41.0	40.7	40.3	40.2	40.1	40.3	40.6	40.0	40.2
Ophthalmic goods	40.2	40.4	40.5	40.1	39.4	40.4	40.9	40.7	40.4	40.5	40.0	40.1	39.8	38.6	39.8
Photographic apparatus	40.7	42.5	42.1	41.8	41.4	41.0	41.3	41.3	40.8	40.5	40.3	40.5	40.8	40.3	40.6
Watches and clocks	39.3	38.9	40.0	40.9	40.7	40.8	39.9	39.7	39.3	39.7	39.4	39.8	39.9	39.0	39.0
Miscellaneous manufacturing industries	40.0	40.6	40.4	40.7	40.5	40.4	40.0	40.5	40.3	40.3	40.0	40.1	40.1	39.6	39.9
Jewelry, silverware, and plated ware	41.3	43.1	42.9	42.8	42.1	41.5	40.2	41.2	41.3	41.1	40.7	41.1	40.9	40.7	40.7
Musical instruments and parts	40.5	42.2	41.9	42.7	42.1	40.9	40.4	41.2	40.6	40.7	41.1	40.9	41.0	39.9	40.5
Toys and sporting goods	38.4	39.0	39.9	40.2	40.0	39.5	38.9	38.9	39.3	39.4	39.0	38.6	39.3	38.9	39.1
Pens, pencils, other office supplies	39.5	40.2	40.0	40.1	40.2	40.6	39.1	40.5	39.9	39.8	40.0	39.8	39.7	39.6	40.3
Costume jewelry, buttons, notions	39.6	39.7	39.0	39.7	40.1	39.6	38.6	40.5	40.2	39.9	39.3	39.5	38.8	38.8	39.2
Fabricated plastics products	41.2	41.5	41.4	41.7	41.5	41.5	41.7	41.7	41.6	41.4	41.3	41.8	41.6	40.6	41.0
Other manufacturing industries	39.9	40.4	39.8	40.2	39.8	40.4	40.3	40.5	39.9	40.0	39.8	39.8	40.0	39.4	39.7
	Average hourly earnings														
Instruments and related products	$2.32	$2.33	$2.31	$2.30	$2.29	$2.28	$2.28	$2.29	$2.26	$2.26	$2.26	$2.25	$2.24	$2.19	$2.11
Laboratory, scientific, and engineering instruments	2.71	2.72	2.69	2.67	2.66	2.65	2.63	2.65	2.60	2.62	2.62	2.61	2.59	2.52	2.37
Mechanical measuring and controlling instruments	2.30	2.31	2.29	2.28	2.25	2.26	2.27	2.28	2.27	2.26	2.26	2.24	2.25	2.19	2.13
Optical instruments and lenses	2.33	2.31	2.28	2.30	2.31	2.30	2.27	2.24	2.22	2.18	2.19	2.20	2.19	2.18	2.12
Surgical, medical, and dental instruments	2.07	2.05	2.06	2.05	2.06	2.05	2.04	2.03	2.02	2.03	2.02	2.01	2.01	1.95	1.85
Ophthalmic goods	1.98	1.97	1.96	1.93	1.94	1.93	1.93	1.93	1.91	1.90	1.90	1.90	1.88	1.85	1.69
Photographic apparatus	2.58	2.58	2.57	2.57	2.56	2.55	2.55	2.55	2.54	2.53	2.53	2.53	2.46	2.42	2.33
Watches and clocks	1.98	1.99	1.97	1.97	1.96	1.94	1.93	1.95	1.92	1.92	1.92	1.91	1.92	1.89	1.85
Miscellaneous manufacturing industries	1.94	1.94	1.91	1.90	1.90	1.90	1.89	1.90	1.90	1.90	1.89	1.88	1.89	1.85	1.81
Jewelry, silverware, and plated ware	1.92	1.97	1.95	1.95	1.93	1.92	1.87	1.89	1.90	1.90	1.90	1.88	1.88	1.86	1.82
Musical instruments and parts	2.16	2.19	2.20	2.20	2.18	2.16	2.11	2.11	2.14	2.15	2.16	2.15	2.15	2.10	2.05
Toys and sporting goods	1.83	1.81	1.77	1.76	1.77	1.74	1.74	1.74	1.74	1.75	1.76	1.75	1.77	1.72	1.68
Pens, pencils, other office supplies	1.78	1.79	1.77	1.76	1.76	1.77	1.76	1.77	1.76	1.76	1.75	1.75	1.73	1.71	1.67
Costume jewelry, buttons, notions	1.76	1.75	1.76	1.76	1.76	1.75	1.72	1.75	1.75	1.74	1.71	1.70	1.69	1.68	1.66
Fabricated plastics products	2.02	2.02	1.99	2.00	2.00	2.00	2.00	2.01	2.00	1.98	1.97	1.97	2.00	1.95	1.91
Other manufacturing industries	2.03	2.01	1.97	1.96	1.97	1.98	1.98	2.00	1.99	1.98	1.97	1.96	1.97	1.93	1.88

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Industry	1960	1959												Annual average	
	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1958	1957
Manufacturing—Continued															
Nondurable goods															
Average weekly earnings															
Food and kindred products	$88.51	$88.78	$87.74	$85.68	$86.11	$84.87	$85.48	$85.69	$85.68	$84.42	$84.42	$83.60	$84.66	$81.81	$78.17
Meat products	103.74	104.73	105.22	103.05	101.29	95.06	95.53	94.60	94.54	93.37	93.77	91.73	95.65	91.08	87.08
Dairy products	86.69	86.30	86.30	86.73	90.52	86.53	87.56	87.77	86.11	84.25	84.86	83.43	84.44	81.90	77.83
Canning and preserving	68.17	68.15	63.47	65.74	67.82	71.65	66.52	66.42	67.42	69.38	68.32	67.55	66.85	66.13	63.57
Grain-mill products	94.39	93.96	95.05	93.96	96.57	93.73	93.49	92.38	90.30	88.20	90.94	90.09	92.84	89.79	85.80
Bakery products	84.35	85.22	85.01	84.42	85.67	83.21	84.25	84.25	83.43	80.69	81.40	81.80	80.19	79.00	75.76
Sugar	96.36	97.31	94.77	82.62	98.59	93.84	94.58	93.89	103.60	91.39	91.69	87.74	89.89	89.73	84.44
Confectionery and related products	71.24	68.90	69.58	69.65	70.47	69.48	69.92	70.27	69.34	67.86	66.61	67.20	67.89	66.30	64.48
Beverages	93.51	96.07	95.26	95.59	100.67	99.60	99.90	98.77	98.06	95.75	93.93	92.66	92.10	92.23	88.98
Miscellaneous food products	85.90	86.73	87.35	86.73	87.78	85.27	84.44	83.80	83.82	82.61	83.01	83.62	82.60	80.95	76.86
Tobacco manufactures	65.70	67.49	64.56	63.92	63.40	65.93	70.58	67.99	67.51	65.02	64.39	63.53	63.63	62.56	58.67
Cigarettes	81.60	83.64	81.81	83.00	82.20	87.44	87.31	80.60	81.41	77.42	77.22	77.41	79.95	77.55	73.60
Cigars	53.42	53.11	55.58	55.34	54.53	53.06	52.78	54.14	51.89	51.18	51.66	51.80	51.80	51.79	49.63
Tobacco and snuff	66.55	68.08	66.70	66.64	66.35	67.12	68.60	67.03	67.41	65.08	64.84	65.19	65.32	62.79	60.75
Tobacco stemming and redrying	51.69	57.65	44.82	49.29	52.27	50.65	59.19	60.64	62.95	58.46	54.02	51.30	50.14	49.92	48.13
Average weekly hours															
Food and kindred products	40.6	41.1	41.0	40.8	41.4	41.4	40.9	41.0	40.8	40.2	40.2	40.0	40.5	40.7	40.5
Meat products	42.0	42.4	43.3	43.3	43.1	40.8	41.0	40.6	40.4	39.9	39.9	39.2	40.7	40.3	40.5
Dairy products	40.7	40.9	40.9	41.3	42.7	41.8	42.3	42.4	41.8	41.5	41.6	41.3	41.8	42.0	42.3
Canning and preserving	38.3	38.5	36.9	38.0	39.2	41.9	38.9	39.3	39.2	39.2	38.6	38.6	38.2	39.6	39.0
Grain-mill products	43.3	43.1	43.6	43.5	44.3	43.8	44.1	44.2	43.0	42.2	43.1	42.9	44.0	43.8	43.4
Bakery products	39.6	40.2	40.1	40.2	40.6	40.2	40.7	40.7	40.5	39.7	40.1	40.1	39.7	40.1	40.3
Sugar	44.2	48.9	48.6	40.9	41.6	40.8	41.3	41.0	43.9	40.8	41.3	41.0	42.6	44.2	43.3
Confectionery and related products	39.8	39.6	40.2	39.8	40.5	39.7	39.5	39.7	39.4	39.0	38.5	39.3	39.7	39.7	39.8
Beverages	38.8	39.7	39.2	39.5	41.6	41.5	41.8	41.5	41.2	40.4	39.8	39.6	39.7	40.1	39.9
Miscellaneous food products	41.1	41.9	42.2	41.9	42.2	41.8	41.8	41.9	41.7	41.1	41.3	41.6	41.3	41.3	41.1
Tobacco manufactures	38.2	39.7	38.2	40.2	40.9	40.7	40.1	39.3	38.8	37.8	38.1	38.5	38.8	39.1	38.6
Cigarettes	40.0	41.0	40.3	41.5	41.1	43.5	42.8	40.5	40.5	39.3	39.4	39.9	41.0	40.6	40.0
Cigars	37.1	37.4	38.6	38.7	38.4	37.9	37.7	38.4	36.8	36.3	36.9	37.0	37.0	37.8	37.6
Tobacco and snuff	37.6	38.9	37.9	38.3	37.7	38.8	39.2	38.3	38.3	37.4	37.7	37.9	38.2	37.6	37.5
Tobacco stemming and redrying	36.4	40.6	33.7	40.4	43.2	40.2	37.7	37.9	39.1	37.0	37.0	38.0	37.7	38.7	38.2
Average hourly earnings															
Food and kindred products	$2.18	$2.16	$2.14	$2.10	$2.08	$2.05	$2.09	$2.09	$2.10	$2.10	$2.10	$2.09	$2.09	$2.01	$1.93
Meat products	2.47	2.47	2.43	2.38	2.35	2.33	2.33	2.33	2.34	2.34	2.35	2.34	2.35	2.26	2.15
Dairy products	2.13	2.11	2.11	2.10	2.12	2.07	2.07	2.07	2.06	2.03	2.04	2.02	2.02	1.95	1.84
Canning and preserving	1.78	1.77	1.72	1.73	1.73	1.71	1.71	1.69	1.72	1.77	1.77	1.75	1.75	1.67	1.63
Grain-mill products	2.18	2.18	2.18	2.16	2.18	2.14	2.12	2.09	2.10	2.09	2.11	2.10	2.11	2.05	1.97
Bakery products	2.13	2.12	2.12	2.10	2.11	2.07	2.07	2.07	2.06	2.04	2.03	2.04	2.02	1.97	1.88
Sugar	2.18	1.99	1.95	2.02	2.37	2.30	2.29	2.29	2.36	2.24	2.22	2.14	2.11	2.03	1.95
Confectionery and related products	1.79	1.74	1.73	1.75	1.74	1.75	1.77	1.77	1.76	1.74	1.73	1.71	1.71	1.67	1.62
Beverages	2.41	2.42	2.43	2.42	2.42	2.40	2.39	2.38	2.38	2.37	2.36	2.34	2.32	2.30	2.23
Miscellaneous food products	2.09	2.07	2.07	2.07	2.08	2.04	2.02	2.00	2.01	2.01	2.01	2.01	2.00	1.96	1.87
Tobacco manufactures	1.72	1.70	1.69	1.59	1.55	1.62	1.76	1.73	1.74	1.72	1.69	1.65	1.64	1.60	1.52
Cigarettes	2.04	2.04	2.03	2.00	2.00	2.01	2.04	1.99	2.01	1.97	1.96	1.94	1.95	1.91	1.84
Cigars	1.44	1.42	1.44	1.43	1.42	1.40	1.40	1.41	1.41	1.41	1.40	1.40	1.40	1.37	1.32
Tobacco and snuff	1.77	1.75	1.76	1.74	1.76	1.73	1.75	1.75	1.76	1.74	1.72	1.72	1.71	1.67	1.62
Tobacco stemming and redrying	1.42	1.42	1.33	1.22	1.21	1.26	1.57	1.60	1.61	1.58	1.46	1.35	1.33	1.29	1.26

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Industry	1960	1959												Annual average	
	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1958	1957
Manufacturing—Continued															
								Average weekly earnings							
Nondurable goods—Continued															
Textile-mill products	$64.48	$64.87	$64.40	$64.40	$63.28	$64.87	$63.83	$64.46	$63.83	$63.27	$63.43	$61.66	$60.89	$58.29	$58.35
Scouring and combing plants	72.42	71.06	70.53	69.72	74.34	70.11	75.16	75.85	73.87	73.65	70.29	68.30	70.52	64.96	64.33
Yarn and thread mills	60.35	60.35	59.90	59.90	59.40	60.20	59.45	60.35	59.45	59.20	58.25	56.52	55.70	52.36	52.73
Broad-woven fabric mills	64.74	65.52	64.74	64.74	63.27	64.90	63.71	64.02	63.55	62.42	62.17	59.98	59.09	56.26	56.70
Narrow fabrics and smallwares	65.20	66.75	65.27	65.11	65.36	64.96	65.69	66.98	66.65	66.65	64.31	64.21	63.27	60.37	60.80
Knitting mills	55.65	56.77	57.96	57.66	57.45	58.71	57.13	58.41	57.66	57.37	57.22	56.68	55.94	54.75	54.09
Dyeing and finishing textiles	70.93	73.78	72.53	72.31	69.66	71.04	70.45	74.22	72.24	71.99	72.50	70.31	67.98	66.53	66.99
Carpets, rugs, other floor coverings	80.54	81.32	79.17	80.73	80.73	81.51	82.91	79.76	81.71	81.51	83.03	82.99	82.41	77.30	74.70
Hats (except cloth and millinery)	60.98	63.00	57.78	57.26	60.02	64.90	60.35	62.93	62.73	60.86	61.18	64.81	63.75	58.74	59.04
Miscellaneous textile goods	76.70	76.45	72.68	74.52	74.52	74.48	74.44	75.03	73.89	72.72	73.44	72.54	71.20	68.98	69.03
Apparel and other finished textile products	55.59	55.85	56.15	55.02	55.69	56.85	55.57	55.05	55.63	55.63	55.85	56.15	55.08	53.45	53.64
Men's and boys' suits and coats	67.08	68.32	68.02	66.02	67.28	67.61	64.18	65.65	65.84	64.06	63.18	63.88	63.36	60.37	63.01
Men's and boys' furnishings and work clothing	48.84	49.13	49.65	49.27	49.91	49.66	48.90	49.02	48.50	48.25	48.38	47.62	47.09	46.08	46.23
Women's outerwear	57.96	58.99	58.48	55.76	57.61	61.24	60.20	57.29	60.01	61.05	61.07	61.94	59.86	57.63	58.10
Women's, children's undergarments	51.24	51.52	53.02	52.36	51.52	51.89	50.09	51.15	50.68	50.74	51.66	50.92	49.68	49.59	48.91
Millinery	64.17	60.82	58.70	60.64	67.32	68.61	64.33	56.43	52.10	58.83	65.34	69.75	65.52	64.05	62.11
Children's outerwear	52.40	50.54	52.22	50.26	50.20	51.24	53.02	52.08	51.01	49.13	49.40	52.50	51.38	50.23	50.55
Miscellaneous apparel and accessories	52.34	52.91	52.91	52.62	52.91	53.82	52.59	52.97	51.69	52.26	51.97	52.45	52.73	50.76	49.90
Other fabricated textile products	60.16	59.97	59.52	59.90	59.75	58.75	59.28	60.13	59.44	60.60	59.97	59.06	59.03	56.85	56.70
								Average weekly hours							
Textile-mill products	40.3	40.8	40.5	40.5	39.8	40.8	40.4	40.8	40.4	40.3	40.4	40.3	39.8	38.6	38.9
Scouring and combing plants	42.6	41.8	40.3	40.3	42.0	41.0	43.7	44.1	43.2	44.1	42.6	41.9	43.0	40.6	40.2
Yarn and thread mills	40.5	40.5	40.2	40.2	39.6	40.4	39.9	40.5	39.9	40.0	39.9	39.8	39.5	37.4	38.2
Broad-woven fabric mills	41.5	42.0	41.5	41.5	40.3	41.6	41.1	41.3	41.0	40.8	40.9	40.8	40.2	38.8	39.1
Narrow fabrics and smallwares	40.0	40.7	39.8	39.7	40.1	40.1	40.8	41.6	41.4	41.4	40.7	40.9	40.3	39.2	40.0
Knitting mills	37.1	38.1	38.9	38.7	38.3	39.4	38.6	39.2	38.7	38.5	38.4	38.3	37.8	37.5	37.3
Dyeing and finishing textiles	41.0	42.4	42.1	41.8	40.5	41.3	41.2	42.9	42.0	42.1	42.4	42.1	41.2	40.5	40.6
Carpets, rugs, other floor coverings	41.3	41.7	40.6	41.4	41.4	41.8	42.3	40.9	41.9	41.8	42.8	43.0	42.7	40.9	40.6
Hats (except cloth and millinery)	36.3	37.5	34.6	34.7	35.1	37.3	35.5	36.8	36.9	35.8	36.2	37.9	37.5	35.6	36.0
Miscellaneous textile goods	40.8	41.1	39.5	40.5	40.5	40.7	40.9	41.0	40.6	40.4	40.8	40.3	40.0	39.4	39.9
Apparel and other finished textile products	36.1	36.5	36.7	36.2	36.4	37.4	36.8	36.7	36.6	36.6	36.5	36.7	36.0	35.4	36.0
Men's and boys' suits and coats	37.9	38.6	38.0	37.3	37.8	38.2	37.1	37.3	37.2	36.4	35.9	36.5	36.0	34.3	35.6
Men's and boys' furnishings and work clothing	37.0	37.5	37.9	37.9	38.1	38.8	38.2	38.3	37.6	37.4	37.5	37.2	36.5	36.0	36.4
Women's outerwear	33.7	34.1	34.0	32.8	33.3	35.4	35.0	34.1	35.3	35.7	35.3	35.6	34.8	34.1	35.0
Women's, children's undergarments	36.6	36.8	37.6	37.4	36.8	37.6	36.3	36.8	36.2	36.5	36.9	36.9	36.0	36.2	36.5
Millinery	34.5	33.6	31.9	32.6	34.7	36.3	34.4	31.7	29.6	32.5	36.5	37.3	36.2	35.0	35.9
Children's outerwear	36.9	36.1	37.3	35.9	35.6	36.6	37.6	37.2	36.7	35.6	35.8	37.5	36.7	36.4	36.9
Miscellaneous apparel and accessories	36.6	37.0	37.0	36.8	37.0	37.9	37.3	37.3	36.4	36.8	36.6	37.2	37.4	36.0	35.6
Other fabricated textile products	37.6	38.2	38.4	38.4	38.3	38.4	38.0	38.3	38.1	38.6	38.2	38.1	37.6	37.4	37.8
								Average hourly earnings							
Textile-mill products	$1.60	$1.59	$1.59	$1.59	$1.59	$1.59	$1.58	$1.58	$1.58	$1.57	$1.57	$1.53	$1.53	$1.51	$1.50
Scouring and combing plants	1.70	1.70	1.75	1.73	1.77	1.71	1.72	1.72	1.71	1.67	1.65	1.63	1.64	1.60	1.60
Yarn and thread mills	1.49	1.49	1.49	1.49	1.50	1.49	1.49	1.49	1.49	1.48	1.46	1.42	1.41	1.40	1.38
Broad-woven fabric mills	1.56	1.56	1.56	1.56	1.57	1.56	1.55	1.55	1.55	1.53	1.52	1.47	1.47	1.45	1.45
Narrow fabrics and smallwares	1.63	1.64	1.64	1.64	1.63	1.62	1.61	1.61	1.61	1.61	1.58	1.57	1.57	1.54	1.52
Knitting mills	1.50	1.49	1.49	1.49	1.50	1.49	1.48	1.49	1.49	1.49	1.49	1.48	1.48	1.46	1.45
Dyeing and finishing textiles	1.73	1.74	1.73	1.73	1.72	1.72	1.71	1.73	1.72	1.71	1.71	1.67	1.65	1.65	1.65
Carpets, rugs, other floor coverings	1.95	1.95	1.95	1.95	1.95	1.95	1.96	1.95	1.95	1.95	1.94	1.93	1.93	1.89	1.84
Hats (except cloth and millinery)	1.68	1.68	1.67	1.65	1.71	1.74	1.70	1.71	1.70	1.70	1.69	1.71	1.70	1.65	1.64
Miscellaneous textile goods	1.88	1.86	1.84	1.84	1.84	1.83	1.82	1.83	1.82	1.80	1.80	1.80	1.78	1.75	1.73
Apparel and other finished textile products	1.54	1.53	1.53	1.52	1.53	1.52	1.51	1.50	1.52	1.52	1.53	1.53	1.53	1.51	1.49
Men's and boys' suits and coats	1.77	1.77	1.79	1.77	1.78	1.77	1.73	1.76	1.77	1.76	1.76	1.75	1.76	1.76	1.77
Men's and boys' furnishings and work clothing	1.32	1.31	1.31	1.30	1.31	1.28	1.28	1.28	1.29	1.29	1.29	1.28	1.29	1.28	1.27
Women's outerwear	1.72	1.73	1.72	1.70	1.73	1.73	1.72	1.68	1.70	1.71	1.73	1.74	1.72	1.69	1.66
Women's, children's undergarments	1.40	1.40	1.41	1.40	1.40	1.38	1.38	1.39	1.40	1.39	1.40	1.38	1.38	1.37	1.34
Millinery	1.86	1.81	1.84	1.86	1.94	1.89	1.87	1.78	1.76	1.81	1.79	1.87	1.81	1.83	1.73
Children's outerwear	1.42	1.40	1.40	1.40	1.41	1.40	1.41	1.40	1.39	1.38	1.38	1.40	1.40	1.38	1.37
Miscellaneous apparel and accessories	1.43	1.43	1.43	1.43	1.43	1.42	1.41	1.42	1.42	1.42	1.42	1.41	1.41	1.41	1.39
Other fabricated textile products	1.60	1.57	1.55	1.56	1.56	1.53	1.56	1.57	1.56	1.57	1.57	1.55	1.57	1.52	1.50

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Industry	1960	1959												Annual average	
	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1958	1957
Manufacturing—Continued									**Average weekly earnings**						
Nondurable goods—Continued															
Paper and allied products	$95.20	$95.22	$95.22	$95.67	$96.77	$95.68	$95.03	$94.60	$93.52	$92.87	$92.66	$92.01	$91.58	$88.53	$88.20
Pulp, paper, and paperboard mills	104.48	104.48	104.72	104.48	106.32	104.08	104.78	102.75	101.64	100.74	100.07	99.39	99.62	96.10	94.18
Paperboard containers and boxes	87.72	86.93	88.20	89.68	90.95	90.31	87.78	87.99	87.57	86.11	86.74	85.28	85.08	82.41	79.90
Other paper and allied products	84.67	85.07	83.64	83.84	84.03	83.00	83.00	83.40	83.20	83.00	82.78	82.78	81.77	78.96	76.07
Printing, publishing, and allied industries	104.94	106.86	103.79	104.83	106.70	103.79	103.52	102.87	102.11	102.11	102.64	100.44	99.94	97.90	96.25
Newspapers	107.80	113.31	107.76	110.00	111.06	108.32	108.02	108.63	108.22	107.87	105.60	104.90	103.95	103.43	102.08
Periodicals	114.52	108.93	113.96	119.83	132.30	119.83	114.39	108.67	106.50	108.63	111.50	106.00	104.15	102.97	101.05
Books	90.68	92.57	90.29	91.31	92.23	93.61	90.23	90.62	90.09	90.06	90.52	87.98	88.88	85.80	84.35
Commercial printing	106.00	106.92	104.28	104.67	106.00	102.06	102.83	101.93	100.61	101.39	102.68	99.57	99.94	97.22	95.76
Lithographing	108.00	109.89	107.19	108.67	109.69	108.13	108.53	106.26	104.41	103.75	105.34	103.88	101.53	98.81	96.53
Greeting cards	77.42	70.10	70.25	69.72	68.60	68.40	69.50	70.02	69.09	70.10	71.21	70.25	71.55	67.03	64.18
Bookbinding and related industries	81.79	83.28	81.66	80.43	81.09	81.12	81.33	80.11	79.28	79.10	78.52	78.13	79.13	74.86	73.71
Miscellaneous publishing and printing services	118.42	118.78	117.18	114.98	117.34	116.10	116.43	115.28	116.70	115.12	117.09	116.19	113.45	110.75	110.78
									Average weekly hours						
Paper and allied products	42.5	42.7	42.7	42.9	43.2	43.1	43.0	43.0	42.9	42.6	42.7	42.4	42.4	41.9	42.3
Pulp, paper, and paperboard mills	43.9	43.9	44.0	43.9	44.3	44.1	44.4	44.1	44.0	43.8	43.7	43.4	43.5	42.9	43.4
Paperboard containers and boxes	40.8	41.2	41.8	42.3	42.5	42.6	41.8	41.9	41.9	41.2	41.7	41.2	41.1	41.0	41.4
Other paper and allied products	41.3	41.7	41.2	41.3	41.6	41.5	41.5	41.7	41.6	41.5	41.6	41.6	41.3	40.7	40.9
Printing, publishing, and allied industries	38.3	39.0	38.3	38.4	38.8	38.3	38.2	38.1	38.1	38.1	38.3	37.9	38.0	37.8	38.5
Newspapers	35.0	36.2	35.1	35.6	36.0	35.4	35.3	35.5	35.6	35.6	35.2	35.2	35.0	35.3	35.8
Periodicals	40.9	39.9	40.7	41.9	44.1	41.9	41.0	40.1	39.3	39.5	40.4	39.7	39.3	39.3	40.1
Books	39.6	40.6	39.6	39.7	40.1	40.7	39.4	39.4	39.3	39.5	39.7	39.1	39.5	39.0	39.6
Commercial printing	40.0	40.5	39.8	39.8	40.0	39.1	39.4	39.2	39.3	39.3	39.8	39.2	39.5	39.2	39.9
Lithographing	40.0	40.7	39.7	40.1	40.0	39.9	39.9	39.5	39.4	39.3	39.6	39.2	38.9	38.9	39.4
Greeting cards	39.7	38.1	38.6	38.1	37.9	38.0	38.4	38.9	38.6	38.1	38.7	38.6	39.1	38.3	38.2
Bookbinding and related industries	38.4	39.1	38.7	38.3	38.8	39.0	39.1	38.7	38.3	38.4	38.3	38.3	38.6	38.6	39.0
Miscellaneous publishing and printing services	38.7	39.2	38.8	38.2	38.6	38.7	38.3	38.3	38.9	38.5	38.9	38.6	38.2	37.8	38.6
									Average hourly earnings						
Paper and allied products	$2.24	$2.23	$2.23	$2.23	$2.24	$2.22	$2.21	$2.20	$2.18	$2.18	$2.17	$2.17	$2.16	$2.12	$2.04
Pulp, paper, and paperboard mills	2.38	2.38	2.38	2.38	2.40	2.36	2.36	2.33	2.31	2.30	2.29	2.29	2.29	2.24	2.17
Paperboard containers and boxes	2.15	2.11	2.11	2.12	2.14	2.12	2.10	2.10	2.09	2.09	2.08	2.07	2.07	2.01	1.93
Other paper and allied products	2.05	2.04	2.03	2.03	2.02	2.00	2.00	2.00	2.00	2.00	1.99	1.99	1.98	1.94	1.86
Printing, publishing, and allied industries	2.74	2.74	2.71	2.73	2.75	2.71	2.71	2.70	2.68	2.68	2.68	2.65	2.63	2.59	2.50
Newspapers	3.08	3.13	3.07	3.09	3.11	3.06	3.06	3.06	3.04	3.03	3.00	2.98	2.97	2.93	2.85
Periodicals	2.80	2.73	2.80	2.86	3.00	2.86	2.79	2.71	2.71	2.75	2.76	2.67	2.65	2.62	2.52
Books	2.29	2.28	2.28	2.30	2.30	2.30	2.29	2.30	2.29	2.28	2.28	2.25	2.25	2.20	2.13
Commercial printing	2.65	2.64	2.62	2.63	2.65	2.61	2.61	2.60	2.56	2.58	2.58	2.54	2.53	2.48	2.40
Lithographing	2.70	2.70	2.70	2.71	2.74	2.71	2.72	2.69	2.65	2.64	2.66	2.65	2.61	2.54	2.45
Greeting cards	1.95	1.84	1.82	1.83	1.81	1.80	1.81	1.80	1.79	1.84	1.84	1.82	1.83	1.75	1.68
Bookbinding and related industries	2.13	2.13	2.11	2.10	2.09	2.08	2.08	2.07	2.07	2.06	2.05	2.04	2.05	1.97	1.89
Miscellaneous publishing and printing services	3.06	3.03	3.02	3.01	3.04	3.00	3.04	3.01	3.00	2.99	3.01	3.01	2.97	2.93	2.87

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Industry	1960	1959												Annual average	
	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1958	1957
	Average weekly earnings														
Manufacturing—Continued															
Nondurable goods—Continued															
Chemicals and allied products	$102.00	$102.66	$101.75	$101.09	$104.48	$100.53	$100.28	$100.43	$99.42	$98.18	$97.88	$97.64	$97.00	$94.48	$91.46
Industrial inorganic chemicals	112.61	114.93	113.55	113.97	117.87	111.24	111.64	111.22	110.27	109.18	108.24	108.36	108.09	104.70	100.04
Industrial organic chemicals	108.99	109.78	108.58	108.05	112.89	106.45	106.86	106.91	105.83	103.98	103.73	103.57	103.73	100.04	96.93
Drugs and medicines	93.25	92.66	93.11	93.11	94.39	89.06	89.28	90.17	89.51	88.70	88.94	88.73	88.54	85.88	82.82
Soap, cleaning and polishing preparations	109.41	109.36	108.16	108.58	110.30	107.49	103.17	104.55	103.38	103.07	104.74	104.74	101.50	100.86	96.17
Paints, pigments, and fillers	98.33	98.33	99.22	96.32	101.40	98.29	98.36	98.88	100.01	99.78	97.23	95.47	95.47	93.25	89.38
Gum and wood chemicals	82.40	84.77	87.90	82.54	86.86	84.20	95.40	84.40	84.35	83.36	80.56	80.16	81.54	80.45	78.20
Fertilizers	78.81	78.57	76.44	75.48	80.70	77.46	75.26	78.38	81.90	81.36	75.16	76.64	76.64	74.03	71.53
Vegetable and animal oils and fats	87.17	86.48	87.23	85.84	87.32	87.00	87.03	87.20	85.34	83.42	82.80	82.40	83.28	82.21	78.67
Miscellaneous chemicals	94.19	94.25	93.43	92.39	92.21	91.13	91.76	92.03	91.62	91.21	90.98	89.42	88.62	87.02	84.03
Products of petroleum and coal	116.69	117.74	118.90	117.50	120.77	116.12	118.78	117.79	117.67	118.20	118.24	114.86	113.70	110.97	108.39
Petroleum refining	120.10	121.80	124.01	119.80	124.53	118.50	121.80	120.39	121.58	122.29	121.18	119.77	117.55	114.90	112.88
Coke, other petroleum and coal products	106.37	105.30	103.17	108.03	108.20	108.03	109.48	108.29	105.41	104.30	108.46	99.04	101.71	97.28	96.00
Rubber products	102.16	101.59	97.66	101.18	102.01	105.33	107.10	98.74	101.46	101.57	103.74	101.09	100.28	92.59	91.53
Tires and inner tubes	121.10	118.59	112.62	117.49	117.56	127.74	128.74	108.93	126.13	123.98	122.96	118.98	117.55	106.04	106.52
Rubber footwear	78.99	80.79	79.80	79.40	79.18	79.17	78.60	81.58	79.58	73.05	79.79	80.59	78.20	76.62	78.47
Other rubber products	92.89	92.93	89.87	93.38	94.73	93.21	95.40	94.98	92.18	90.03	93.02	91.96	91.27	84.59	82.62
	Average weekly hours														
Chemicals and allied products	41.5	41.9	41.7	41.6	42.3	41.2	41.1	41.5	41.6	41.6	41.3	41.2	41.1	40.9	41.2
Industrial inorganic chemicals	41.4	42.1	41.9	41.9	42.4	41.2	41.5	41.5	41.3	41.2	41.0	41.2	41.1	40.9	41.0
Industrial organic chemicals	41.6	41.9	41.6	41.4	42.6	41.1	41.1	41.6	41.5	41.1	41.0	41.1	41.0	40.5	40.9
Drugs and medicines	40.9	41.0	41.2	41.2	41.4	40.3	40.4	40.8	40.5	40.5	40.8	40.7	40.8	40.7	40.8
Soap, cleaning and polishing preparations	41.6	41.9	41.6	41.6	42.1	41.5	40.3	41.0	40.7	40.9	41.4	41.4	40.6	41.0	41.1
Paints, pigments, and fillers	40.8	40.8	41.0	40.3	41.9	41.3	41.5	41.9	42.2	42.1	41.2	40.8	40.8	40.9	41.0
Gum and wood chemicals	41.2	42.6	43.3	41.9	43.0	42.1	42.7	42.2	42.6	42.1	41.1	40.9	41.6	41.9	42.5
Fertilizers	42.6	42.7	42.0	41.7	42.7	42.1	40.9	42.6	45.0	47.3	43.7	43.3	43.3	42.3	42.5
Vegetable and animal oils and fats	45.4	46.0	46.4	46.4	46.2	43.5	43.3	43.6	43.1	43.0	42.9	43.6	44.3	44.2	44.7
Miscellaneous chemicals	40.6	40.8	40.8	40.7	40.8	40.5	40.6	40.9	40.9	40.9	40.8	40.1	40.1	40.1	40.4
Products of petroleum and coal	40.1	40.6	41.0	40.8	41.5	40.6	41.1	40.9	41.0	40.9	41.2	40.3	40.9	40.5	40.9
Petroleum refining	39.9	40.6	41.2	40.2	41.1	39.9	40.6	40.4	40.8	40.9	40.8	40.6	41.1	40.6	40.9
Coke, other petroleum and coal products	40.6	40.5	40.3	42.7	42.6	42.7	42.6	42.3	41.5	40.9	42.7	39.3	40.2	40.2	41.2
Rubber products	40.7	40.8	39.7	40.8	41.3	42.3	42.5	40.3	42.1	41.8	42.0	41.6	41.1	39.4	40.5
Tires and inner tubes	40.5	40.2	38.7	40.1	40.4	43.3	43.2	36.8	42.9	42.9	42.4	41.6	41.1	38.7	40.5
Rubber footwear	39.3	39.8	39.9	39.9	40.4	40.6	40.1	41.2	40.6	39.7	40.3	40.7	39.9	39.7	39.5
Other rubber products	41.1	41.3	40.3	41.5	42.1	41.8	42.4	42.4	41.9	41.3	41.9	41.8	41.3	39.9	40.7
	Average hourly earnings														
Chemicals and allied products	$2.46	$2.45	$2.44	$2.43	$2.47	$2.44	$2.44	$2.42	$2.39	$2.36	$2.37	$2.37	$2.36	$2.31	$2.22
Industrial inorganic chemicals	2.72	2.73	2.71	2.72	2.78	2.70	2.69	2.68	2.67	2.65	2.64	2.63	2.63	2.56	2.44
Industrial organic chemicals	2.62	2.62	2.61	2.61	2.65	2.59	2.60	2.57	2.55	2.53	2.53	2.52	2.53	2.47	2.37
Drugs and medicines	2.28	2.26	2.26	2.26	2.28	2.21	2.21	2.21	2.21	2.19	2.18	2.18	2.17	2.11	2.03
Soap, cleaning and polishing preparations	2.63	2.61	2.60	2.61	2.62	2.59	2.56	2.55	2.54	2.52	2.53	2.53	2.50	2.46	2.34
Paints, pigments, and fillers	2.41	2.41	2.42	2.39	2.42	2.38	2.37	2.36	2.37	2.37	2.36	2.34	2.34	2.28	2.18
Gum and wood chemicals	2.00	1.99	2.03	1.97	2.02	2.00	2.00	2.00	1.98	1.98	1.96	1.96	1.96	1.92	1.84
Fertilizers	1.85	1.84	1.82	1.81	1.89	1.84	1.84	1.84	1.82	1.72	1.72	1.77	1.77	1.75	1.69
Vegetable and animal oils and fats	1.92	1.88	1.88	1.85	1.89	2.00	2.01	2.00	1.98	1.94	1.93	1.89	1.88	1.86	1.76
Miscellaneous chemicals	2.32	2.31	2.29	2.27	2.26	2.25	2.26	2.25	2.24	2.23	2.23	2.23	2.21	2.17	2.08
Products of petroleum and coal	2.91	2.90	2.90	2.88	2.91	2.86	2.89	2.88	2.87	2.89	2.87	2.85	2.78	2.74	2.65
Petroleum refining	3.01	3.00	3.01	2.98	3.03	2.97	3.00	2.98	2.98	2.99	2.97	2.95	2.86	2.83	2.76
Coke, other petroleum and coal products	2.62	2.60	2.56	2.53	2.54	2.53	2.57	2.56	2.54	2.55	2.54	2.52	2.53	2.42	2.33
Rubber products	2.51	2.49	2.46	2.48	2.47	2.49	2.52	2.45	2.41	2.43	2.47	2.43	2.44	2.35	2.26
Tires and inner tubes	2.99	2.95	2.91	2.93	2.91	2.95	2.98	2.96	2.94	2.89	2.90	2.86	2.86	2.74	2.63
Rubber footwear	2.01	2.03	2.00	1.99	1.96	1.95	1.96	1.98	1.96	1.84	1.98	1.98	1.96	1.93	1.86
Other rubber products	2.26	2.25	2.23	2.25	2.25	2.23	2.25	2.24	2.20	2.18	2.22	2.20	2.21	2.12	2.03

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Industry	1960	1959											Annual average	
	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1958	1957
Average weekly earnings															
Manufacturing—Continued															
Nondurable goods—Continued															
Leather and leather products	$61.40	$61.07	$60.43	$58.28	$59.09	$60.48	$60.90	$61.50	$60.54	$59.57	$60.80	$62.08	$62.56	$57.78	$57.09
Leather: tanned, curried, and finished	81.51	82.74	81.09	80.50	80.11	80.52	79.70	80.94	81.56	81.58	80.77	80.58	81.39	78.39	76.64
Industrial leather belting and packing	74.68	79.80	69.50	72.38	77.42	80.19	79.56	83.38	82.74	82.80	82.90	76.76	78.69	76.62	77.27
Boot and shoe cut stock and findings	60.30	59.83	56.21	54.42	55.85	57.30	58.05	58.74	57.91	55.87	56.47	58.52	58.98	56.02	55.42
Footwear (except rubber)	59.57	58.40	57.46	55.69	56.47	58.50	59.21	59.44	58.03	56.78	58.81	60.37	60.76	54.87	55.13
Luggage	63.00	63.54	69.70	63.50	64.19	64.85	65.11	65.63	65.02	65.40	64.18	62.92	63.52	63.46	62.43
Handbags and small leather goods	57.13	58.65	59.60	54.24	56.24	56.74	56.60	54.54	53.87	54.52	56.26	58.25	56.02	55.54	53.68
Gloves and miscellaneous leather goods	50.34	53.11	53.71	52.77	51.41	52.88	51.61	51.66	50.92	51.43	51.85	51.10	51.89	50.40	49.59
Transportation and public utilities:															
Transportation:															
Interstate railroads:															
Class R railroads[5]	------	110.00	106.86	105.25	106.17	103.38	107.35	108.28	104.90	106.09	105.00	109.39	108.66	101.80	94.24
Local railways and buslines	95.37	96.10	95.44	94.57	94.33	95.68	95.47	95.92	95.04	93.95	92.87	92.65	92.44	90.52	88.56
Communication:															
Telephone	86.36	87.42	89.95	88.58	89.22	85.85	86.29	85.02	84.20	82.56	81.79	82.47	80.81	78.72	76.05
Telegraph[4]	95.30	95.53	95.53	95.57	100.11	97.13	95.79	96.64	97.33	94.62	93.98	93.98	93.98	90.06	87.36
Other public utilities:															
Gas and electric utilities	108.24	107.98	109.03	108.62	107.79	105.93	106.04	105.37	103.68	103.79	104.04	103.89	103.32	100.37	95.30
Electric light and power utilities	108.65	107.71	108.65	108.24	108.36	107.16	107.53	106.60	104.60	105.37	104.86	104.70	103.63	101.43	97.09
Gas utilities	101.09	101.18	103.91	103.17	102.34	99.06	98.74	98.49	97.61	95.84	96.80	97.27	98.06	94.83	90.13
Electric light and gas utilities combined	114.54	114.12	114.13	113.44	112.06	110.00	110.42	110.54	107.07	108.12	108.92	108.80	107.83	103.62	97.10
Average weekly hours															
Manufacturing—Continued															
Nondurable goods—Continued															
Leather and leather products	37.9	37.7	37.3	36.2	36.7	37.8	38.3	38.2	37.6	37.0	38.0	38.8	39.1	36.8	37.4
Leather: tanned, curried, and finished	39.0	39.4	38.8	38.7	38.7	38.9	38.5	39.1	39.4	39.6	39.4	39.5	39.7	39.0	39.3
Industrial leather belting and packing	38.1	40.1	36.2	37.5	39.5	40.5	40.8	41.9	42.0	42.9	43.0	40.4	41.2	39.7	41.1
Boot and shoe cut stock and findings	38.9	38.6	36.5	35.8	36.5	37.7	38.7	38.9	38.1	37.0	37.4	38.5	38.8	37.1	37.7
Footwear (except rubber)	37.7	37.2	36.6	35.7	36.2	37.5	38.2	38.1	37.2	36.4	37.7	38.7	39.2	36.1	37.0
Luggage	37.5	37.6	41.0	37.8	38.9	39.3	39.7	39.3	38.7	38.7	38.2	37.6	37.4	38.0	38.3
Handbags and small leather goods	38.6	39.1	40.0	36.4	38.0	38.6	38.5	37.1	36.9	37.6	38.8	39.9	38.9	38.3	37.8
Gloves and miscellaneous leather goods	35.7	37.4	37.3	36.9	35.7	37.5	36.6	36.9	36.9	37.0	37.3	36.5	36.8	36.0	36.3
Transportation and public utilities:															
Transportation:															
Interstate railroads:															
Class I railroads[5]	------	42.8	41.1	41.6	41.8	40.7	42.6	42.8	41.3	42.1	41.5	42.4	41.6	41.6	41.7
Local railways and buslines	42.2	42.9	42.8	42.6	42.3	43.1	43.2	43.6	43.2	42.9	42.6	42.5	42.6	42.7	43.2
Communication:															
Telephone	38.9	39.2	40.7	39.9	40.6	39.2	39.4	39.0	38.8	38.4	38.4	38.9	38.3	38.4	39.0
Telegraph[4]	41.8	41.9	41.9	42.1	44.1	42.6	42.2	42.2	42.5	41.5	41.4	41.4	41.4	41.5	41.8
Other public utilities:															
Gas and electric utilities	41.0	40.9	41.3	41.3	41.3	40.9	41.1	41.0	40.5	40.7	40.8	40.9	41.0	40.8	40.9
Electric light and power utilities	41.0	40.8	41.0	41.0	41.2	40.9	41.2	41.0	40.7	41.0	40.8	40.9	40.8	40.9	41.3
Gas utilities	40.6	40.8	41.4	41.6	41.6	40.6	40.8	40.7	40.5	40.1	40.5	40.7	41.2	40.7	40.6
Electric light and gas utilities combined	41.5	41.2	41.5	41.4	41.2	41.2	41.2	41.4	40.1	40.8	41.1	41.1	41.0	40.8	40.8
Average hourly earnings															
Manufacturing—Continued															
Nondurable goods—Continued															
Leather and leather products	$1.62	$1.62	$1.62	$1.61	$1.61	$1.60	$1.59	$1.61	$1.61	$1.61	$1.60	$1.60	$1.60	$1.57	$1.54
Leather: tanned, curried, and finished	2.09	2.10	2.09	2.08	2.07	2.07	2.07	2.07	2.07	2.06	2.05	2.04	2.08	2.01	1.93
Industrial leather belting and packing	1.96	1.99	1.92	1.93	1.96	1.98	1.95	1.99	1.97	1.93	1.93	1.90	1.91	1.93	1.88
Boot and shoe cut stock and findings	1.55	1.55	1.54	1.52	1.53	1.52	1.50	1.51	1.52	1.51	1.51	1.52	1.52	1.51	1.47
Footwear (except rubber)	1.58	1.57	1.57	1.56	1.56	1.56	1.55	1.56	1.56	1.56	1.56	1.56	1.55	1.52	1.49
Luggage	1.68	1.69	1.70	1.68	1.65	1.65	1.64	1.67	1.68	1.69	1.68	1.70	1.70	1.67	1.63
Handbags and small leather goods	1.48	1.50	1.49	1.49	1.48	1.47	1.47	1.47	1.46	1.45	1.45	1.46	1.44	1.45	1.42
Gloves and miscellaneous leather goods	1.41	1.42	1.44	1.43	1.44	1.41	1.41	1.40	1.38	1.39	1.39	1.40	1.41	1.40	1.37
Transportation and public utilities:															
Transportation:															
Interstate railroads:															
Class I railroads[5]	------	2.57	2.60	2.53	2.54	2.54	2.52	2.53	2.54	2.52	2.53	2.58	2.54	2.44	2.26
Local railways and buslines	2.26	2.24	2.23	2.22	2.23	2.22	2.21	2.20	2.20	2.19	2.18	2.18	2.17	2.12	2.05
Communication:															
Telephone	2.22	2.23	2.21	2.22	2.20	2.19	2.19	2.18	2.17	2.15	2.13	2.12	2.11	2.05	1.95
Telegraph[4]	2.28	2.28	2.28	2.27	2.27	2.28	2.27	2.29	2.29	2.28	2.27	2.27	2.27	2.17	2.09
Other public utilities:															
Gas and electric utilities	2.64	2.64	2.64	2.63	2.61	2.59	2.58	2.57	2.56	2.55	2.53	2.54	2.52	2.46	2.33
Electric light and power utilities	2.65	2.64	2.65	2.64	2.63	2.62	2.61	2.60	2.57	2.57	2.57	2.56	2.54	2.48	2.35
Gas utilities	2.49	2.48	2.51	2.48	2.46	2.44	2.42	2.42	2.41	2.39	2.39	2.39	2.38	2.33	2.22
Electric light and gas utilities combined	2.76	2.77	2.75	2.74	2.72	2.67	2.68	2.67	2.67	2.65	2.65	2.64	2.63	2.54	2.38

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Industry	1960	1959												Annual average	
	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1958	1957
Average weekly earnings															
Wholesale and retail trade:															
Wholesale trade	$91.43	$91.94	$91.71	$91.53	$91.94	$91.53	$91.76	$91.13	$90.27	$89.42	$89.24	$88.00	$88.44	$87.02	$84.42
Retail trade (except eating and drinking places)	66.95	66.09	66.38	67.11	67.82	68.32	68.68	67.79	66.70	66.33	65.95	65.95	66.29	64.77	62.48
General merchandise stores	48.96	50.01	47.46	47.94	48.50	49.42	49.07	48.72	47.54	47.47	47.40	47.13	48.23	46.85	44.85
Department stores and general mail-order houses	54.98	56.70	52.98	53.82	54.60	55.03	54.82	54.72	53.55	53.55	53.15	52.70	54.01	52.60	50.26
Food and liquor stores	70.13	69.26	69.81	69.65	71.20	71.23	72.18	70.29	69.14	68.78	68.97	69.52	68.43	67.52	65.50
Automotive and accessories dealers	87.00	86.29	88.71	89.76	87.40	89.12	90.20	90.41	89.12	88.44	86.72	86.04	87.07	83.22	83.22
Apparel and accessories stores	52.55	53.35	51.83	51.34	52.29	52.54	52.65	52.55	51.79	51.26	49.88	51.41	52.40	50.81	49.13
Other retail trade:															
Furniture and appliance stores	76.67	79.80	77.46	76.18	77.42	77.79	77.15	75.95	75.12	73.51	72.51	72.92	73.75	72.31	71.23
Lumber and hardware supply stores	78.06	79.99	80.22	81.79	80.79	81.94	81.70	80.70	80.51	79.71	78.12	76.41	76.78	77.04	74.69
Finance, insurance, and real estate:															
Banks and trust companies [4]	70.12	68.81	68.26	68.81	68.26	68.07	68.06	67.69	68.25	68.06	68.25	67.34	67.14	66.57	64.21
Security dealers and exchanges	116.07	117.14	110.15	109.43	107.22	114.84	120.43	123.72	126.01	131.40	124.67	124.46	122.71	106.88	98.77
Insurance carriers	87.03	86.52	86.32	85.79	85.98	86.89	86.57	85.91	85.24	85.33	85.37	84.95	84.59	82.97	80.73
Service and miscellaneous:															
Hotels and lodging places:															
Hotels, year-round [5]	48.40	48.40	48.24	48.20	48.36	47.91	47.44	47.32	46.92	46.52	46.12	46.28	45.66	45.20	43.52
Personal services:															
Laundries	46.65	47.24	46.37	46.06	46.96	46.33	46.22	46.92	47.27	46.28	45.70	44.85	45.20	44.30	43.27
Cleaning and dyeing plants	53.24	54.91	54.35	55.60	53.54	51.65	51.92	54.79	55.48	53.72	51.82	50.49	51.98	50.82	50.57
Motion pictures:															
Motion-picture production and distribution	112.04	112.89	114.31	114.51	110.97	114.98	108.26	103.15	104.80	105.02	105.12	103.23	101.29	98.65	99.48
Average weekly hours															
Wholesale and retail trade:															
Wholesale trade	40.1	40.5	40.4	40.5	40.5	40.5	40.6	40.5	40.3	40.1	40.2	40.0	40.2	40.1	40.2
Retail trade (except eating and drinking places)	37.4	38.2	37.5	37.7	38.1	38.6	38.8	38.3	37.9	37.9	37.9	37.9	38.1	38.1	38.1
General merchandise stores	34.0	36.5	33.9	34.0	34.4	35.3	35.3	34.8	34.2	34.4	34.6	34.4	34.7	34.7	34.5
Department stores and general mail-order houses	34.8	37.3	34.4	34.5	35.0	35.5	35.6	35.3	35.0	35.0	35.2	34.9	35.3	35.3	34.9
Food and liquor stores	35.6	35.7	35.8	35.9	36.7	37.1	37.4	36.8	36.2	36.2	36.3	36.4	36.4	36.3	36.8
Automotive and accessories dealers	43.5	43.8	43.7	44.0	43.7	43.9	44.0	44.1	43.9	44.0	43.8	43.9	44.2	43.8	43.8
Apparel and accessories stores	33.9	35.1	34.1	34.0	34.4	35.5	35.1	34.8	34.3	34.4	33.7	34.5	34.7	34.8	34.6
Other retail trade:															
Furniture and appliance stores	41.0	42.0	41.2	41.4	41.4	41.6	41.7	41.5	41.5	41.3	41.2	41.2	41.2	41.8	41.9
Lumber and hardware supply stores	41.3	42.1	42.0	42.6	42.3	42.9	43.0	42.7	42.6	42.4	42.0	41.3	41.5	42.1	42.2
Finance, insurance, and real estate:															
Banks and trust companies [4]	37.9	37.6	37.3	37.6	37.3	37.4	37.6	37.4	37.5	37.6	37.5	37.0	37.3	37.4	------
Security dealers and exchanges	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Insurance carriers	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Service and miscellaneous:															
Hotels and lodging places:															
Hotels, year-round [5]	40.0	40.0	40.2	40.5	40.3	40.6	40.2	40.1	40.1	40.1	40.1	39.9	39.7	40.0	40.3
Personal services:															
Laundries	39.2	39.7	39.3	39.8	39.8	39.6	39.5	40.1	40.4	39.9	39.4	39.0	39.3	39.2	39.7
Cleaning and dyeing plants	38.3	39.5	39.1	40.0	38.8	37.7	37.9	39.7	40.2	39.5	38.1	37.4	38.5	38.5	38.9
Motion pictures:															
Motion-picture production and distribution	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Average hourly earnings															
Wholesale and retail trade:															
Wholesale trade	$2.28	$2.27	$2.27	$2.26	$2.27	$2.26	$2.26	$2.25	$2.24	$2.23	$2.22	$2.20	$2.20	$2.17	$2.10
Retail trade (except eating and drinking places)	1.79	1.73	1.77	1.78	1.78	1.77	1.77	1.77	1.76	1.75	1.74	1.74	1.74	1.70	1.64
General merchandise stores	1.44	1.37	1.40	1.41	1.41	1.40	1.39	1.40	1.39	1.38	1.37	1.37	1.39	1.35	1.30
Department stores and general mail-order houses	1.58	1.52	1.54	1.56	1.56	1.55	1.54	1.55	1.53	1.53	1.51	1.51	1.53	1.49	1.44
Food and liquor stores	1.97	1.94	1.95	1.94	1.94	1.92	1.93	1.91	1.91	1.90	1.90	1.91	1.88	1.86	1.78
Automotive and accessories dealers	2.00	1.97	2.03	2.04	2.00	2.03	2.05	2.05	2.03	2.01	1.98	1.96	1.97	1.90	1.90
Apparel and accessories stores	1.55	1.52	1.52	1.51	1.52	1.48	1.50	1.51	1.51	1.49	1.48	1.49	1.51	1.46	1.42
Other retail trade:															
Furniture and appliance stores	1.87	1.90	1.88	1.84	1.87	1.87	1.85	1.83	1.81	1.78	1.76	1.77	1.79	1.73	1.70
Lumber and hardware supply stores	1.89	1.90	1.91	1.92	1.91	1.91	1.90	1.89	1.89	1.88	1.86	1.85	1.85	1.83	1.77
Finance, insurance, and real estate:															
Banks and trust companies [4]	1.85	1.83	1.83	1.83	1.83	1.82	1.81	1.81	1.82	1.81	1.82	1.82	1.80	1.78	------
Security dealers and exchanges	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Insurance carriers	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Service and miscellaneous:															
Hotels and lodging places:															
Hotels, year-round [5]	1.21	1.21	1.20	1.19	1.20	1.18	1.18	1.18	1.17	1.16	1.15	1.16	1.15	1.13	1.08
Personal services:															
Laundries	1.19	1.19	1.18	1.18	1.18	1.17	1.17	1.17	1.17	1.16	1.16	1.15	1.15	1.13	1.09
Cleaning and dyeing plants	1.39	1.39	1.39	1.39	1.38	1.37	1.37	1.38	1.38	1.36	1.36	1.35	1.35	1.32	1.30
Motion pictures:															
Motion-picture production and distribution	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

[1] For comparability of data with those published in issues prior to August 1958 and coverage of these series, see footnote 1, table A–2.

In addition, hours and earnings data for anthracite mining have been revised from January 1953 and are not comparable with those published in issues prior to August 1958.

For mining, manufacturing, laundries, and cleaning and dyeing plants, data refer to production and related workers; for contract construction, to construction workers; and for the remaining industries, unless otherwise noted, to nonsupervisory workers and working supervisors.

[2] Preliminary.

[3] Figures for Class I railroads (excluding switching and terminal companies) are based upon monthly data summarized in the M–300 report by the Interstate Commerce Commission and relate to all employees who received pay during the month, except executives, officials, and staff assistants (ICC Group I).

[4] Data relate to domestic nonsupervisory employees except messengers.

[5] Average weekly earnings have been revised beginning with January 1958 and are not strictly comparable with data for earlier years. Average weekly hours and average hourly earnings are new series, available from January 1958.

[6] Money payments only; additional value of board, room, uniforms, and tips not included.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics for all series except that for Class I railroads (see footnote 3).

TABLE C–2. Average overtime hours and average hourly earnings excluding overtime of production workers in manufacturing, by major industry group[1]

Major industry group	1960	1959												Annual average	
	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1958	1957
	Average overtime hours[3]														
Manufacturing	2.8	2.7	2.6	2.8	3.0	2.9	2.7	2.9	2.7	2.6	2.6	2.4	2.3	2.0	2.4
Durable goods	2.9	2.7	2.5	2.8	3.0	3.0	2.7	3.0	2.8	2.6	2.6	2.4	2.3	1.9	2.4
Ordnance and accessories	2.0	2.2	2.1	2.1	2.3	2.1	2.1	2.2	2.1	1.9	2.0	1.8	2.1	2.0	2.0
Lumber and wood products	3.0	3.0	3.2	3.5	3.6	4.1	3.5	3.7	3.7	3.3	3.3	3.0	2.9	2.9	2.8
Furniture and fixtures	2.8	3.5	3.2	3.5	3.2	3.3	2.8	2.7	2.4	2.3	2.6	2.5	2.6	2.1	2.3
Stone, clay, and glass products	2.9	3.0	3.2	3.4	3.6	3.9	2.6	3.6	3.8	3.5	3.2	2.9	2.8	2.8	3.1
Primary metal industries	2.9	2.6	2.3	2.6	3.0	2.6	2.4	3.1	2.9	2.7	2.5	2.3	2.1	1.3	2.0
Fabricated metal products	3.1	3.0	2.3	2.9	3.6	3.4	3.0	3.3	3.0	2.7	2.5	2.3	2.2	2.1	2.8
Machinery (except electrical)	2.8	2.9	2.5	2.7	2.8	2.8	2.9	3.2	3.0	2.9	2.7	2.4	2.2	1.7	2.6
Electrical machinery	2.3	2.4	2.2	2.5	2.6	2.4	2.1	2.3	2.1	1.8	2.0	2.1	2.0	1.5	1.9
Transportation equipment	3.8	2.5	1.9	2.5	2.7	2.7	2.6	2.8	2.6	2.6	2.5	2.3	2.2	1.9	2.4
Instruments and related products	2.2	2.7	2.6	2.5	2.4	2.3	2.4	2.2	2.0	2.0	1.9	1.9	1.9	1.5	2.0
Miscellaneous manufacturing	2.3	2.7	2.7	3.1	3.0	2.7	2.4	2.7	2.5	2.5	2.4	2.3	2.4	2.1	2.3
Nondurable goods	2.6	2.7	2.7	2.8	3.0	2.9	2.8	2.7	2.6	2.5	2.6	2.4	2.4	2.2	2.4
Food and kindred products	3.3	3.4	3.6	3.6	4.0	3.3	3.4	3.4	3.2	2.8	2.8	2.9	3.0	3.0	3.1
Tobacco manufactures	1.0	1.1	1.0	1.3	1.6	1.7	1.8	1.5	1.2	.7	.9	.7	.9	1.3	1.2
Textile-mill products	3.0	3.2	3.2	3.2	3.1	3.3	3.1	3.3	3.0	3.0	3.0	2.9	2.6	2.1	2.2
Apparel and other finished textile products	1.3	1.4	1.6	1.5	1.5	1.7	1.4	1.4	1.4	1.4	1.4	1.4	1.1	1.1	1.1
Paper and allied products	4.3	4.3	4.5	4.6	5.1	4.9	4.7	4.6	4.6	4.4	4.5	4.4	4.2	3.9	4.3
Printing and publishing	2.9	3.6	3.1	3.2	3.6	3.2	2.9	2.8	2.7	2.8	2.9	2.4	2.4	2.5	3.0
Chemicals and allied products	2.5	2.4	2.4	2.5	3.1	2.5	2.4	2.4	2.6	2.7	2.3	2.2	2.1	2.0	2.2
Products of petroleum and coal	1.6	1.5	1.8	2.1	2.3	2.0	2.3	1.7	1.6	1.8	1.9	1.3	1.7	1.5	1.9
Rubber products	2.9	2.8	2.5	3.5	4.3	4.6	4.8	3.9	3.9	3.7	4.0	3.7	3.2	2.3	2.8
Leather and leather products	1.3	1.4	1.4	1.2	1.2	1.3	1.3	1.3	1.2	1.1	1.5	1.8	2.0	1.1	1.3
	Average hourly earnings excluding overtime[4]														
Manufacturing	$2.21	$2.20	$2.16	$2.14	$2.14	$2.12	$2.16	$2.16	$2.16	$2.16	$2.15	$2.13	$2.13	$2.08	$2.01
Durable goods	2.37	2.35	2.31	2.28	2.28	2.27	2.31	2.32	2.32	2.31	2.31	2.29	2.29	2.23	2.14
Ordnance and accessories	2.56	2.54	2.53	2.52	2.49	2.48	2.49	2.49	2.49	2.46	2.46	2.47	2.47	2.42	2.28
Lumber and wood products	1.89	1.92	1.94	1.94	1.94	1.91	1.89	1.90	1.88	1.87	1.84	1.81	1.83	1.82	1.75
Furniture and fixtures	1.79	1.78	1.76	1.76	1.76	1.76	1.77	1.78	1.76	1.76	1.75	1.74	1.74	1.73	1.70
Stone, clay, and glass products	2.17	2.17	2.16	2.14	2.14	2.12	2.13	2.12	2.12	2.12	2.12	2.10	2.09	2.04	1.98
Primary metal industries	2.77	2.77	2.70	2.57	2.56	2.55	2.73	2.74	2.74	2.74	2.73	2.71	2.70	2.61	2.44
Fabricated metal products	2.35	2.33	2.29	2.28	2.29	2.28	2.29	2.29	2.29	2.28	2.28	2.27	2.26	2.21	2.11
Machinery (except electrical)	2.46	2.46	2.45	2.44	2.43	2.41	2.41	2.41	2.41	2.40	2.40	2.39	2.38	2.33	2.23
Electrical machinery	2.21	2.20	2.18	2.17	2.16	2.15	2.17	2.16	2.16	2.16	2.16	2.15	2.15	2.11	2.02
Transportation equipment	2.64	2.64	2.60	2.62	2.62	2.60	2.57	2.57	2.56	2.55	2.55	2.55	2.55	2.47	2.35
Instruments and related products	2.26	2.25	2.24	2.23	2.22	2.22	2.22	2.23	2.21	2.21	2.21	2.20	2.19	2.15	2.06
Miscellaneous manufacturing	1.89	1.88	1.84	1.83	1.83	1.84	1.84	1.84	1.84	1.84	1.84	1.83	1.84	1.80	1.76
Nondurable goods	1.99	1.97	1.96	1.95	1.95	1.93	1.95	1.94	1.94	1.94	1.93	1.92	1.92	1.89	1.83
Food and kindred products	2.10	2.08	2.05	2.02	1.99	1.97	2.00	2.01	2.02	2.03	2.03	2.02	2.02	1.94	1.86
Tobacco manufactures	1.70	1.68	1.67	1.56	1.52	1.59	1.72	1.70	1.72	1.70	1.67	1.63	1.62	1.57	1.50
Textile-mill products	1.54	1.53	1.53	1.53	1.53	1.52	1.52	1.52	1.52	1.52	1.51	1.48	1.48	1.47	1.46
Apparel and other finished textile products	1.51	1.50	1.50	1.49	1.50	1.48	1.48	1.48	1.49	1.49	1.50	1.50	1.51	1.49	1.47
Paper and allied products	2.14	2.12	2.12	2.12	2.12	2.10	2.10	2.08	2.07	2.07	2.06	2.06	2.06	2.02	1.94
Printing and publishing	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Chemicals and allied products	2.39	2.39	2.37	2.36	2.39	2.36	2.37	2.35	2.32	2.29	2.30	2.30	2.30	2.26	2.16
Products of petroleum and coal	2.86	2.85	2.84	2.80	2.83	2.79	2.82	2.82	2.82	2.82	2.80	2.81	2.73	2.69	2.59
Rubber products	2.43	2.41	2.39	2.38	2.35	2.36	2.38	2.34	2.30	2.33	2.35	2.33	2.35	2.28	2.18
Leather and leather products	1.59	1.59	1.59	1.58	1.58	1.58	1.57	1.58	1.58	1.58	1.57	1.57	1.56	1.58	1.52

[1] For comparability of data with those published in issues prior to August 1958, see footnote 1, table A-2.
[2] Preliminary.
[3] Covers premium overtime hours of production and related workers during the pay period ending nearest the 15th of the month. Overtime hours are those for which premiums were paid because the hours were in excess of the number of hours of either the straight-time workday or workweek. Weekend and holiday hours are included only if premium wage rates were paid. Hours for which only shift differential, hazard, incentive, or other similar types of premiums were paid are excluded. These data are not available prior to 1956.
[4] Derived by assuming that overtime hours are paid at the rate of time and one-half.
[5] Not available as average overtime rates are significantly above time and one-half. Inclusion of data for the group in the nondurable-goods total has little effect.

TABLE C–3. Indexes of aggregate weekly man-hours and payrolls in industrial and construction activities [1]

[1947–49=100]

Activity	1960		1959											Annual average	
	Feb. [2]	Jan. [2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1958	1957
Man-hours															
Total	98.4	99.5	102.4	100.1	101.4	103.0	103.2	104.0	105.7	102.5	99.9	97.5	94.4	94.3	105.6
Mining	63.7	63.9	67.3	64.1	60.0	59.2	61.7	66.9	71.4	68.8	66.5	65.6	66.0	67.9	81.4
Contract construction	97.3	101.0	118.9	123.3	133.7	136.5	146.1	140.1	138.9	129.2	119.0	103.7	92.0	118.2	127.3
Manufacturing	100.9	101.7	102.4	99.2	99.5	101.1	99.8	101.3	103.3	100.9	99.4	98.7	96.6	92.6	104.1
Durable goods	109.6	110.5	109.8	103.4	103.3	103.9	101.6	108.0	111.7	109.3	107.1	105.3	102.1	95.9	112.9
Ordnance and accessories	330.7	328.4	334.7	325.9	328.0	326.9	313.2	322.0	325.0	327.9	325.6	320.3	320.2	303.0	339.4
Lumber and wood products	71.5	72.7	76.9	78.7	81.7	82.5	84.6	83.2	84.4	79.8	75.7	73.6	69.3	72.7	76.6
Furniture and fixtures	110.3	109.9	113.5	111.4	113.8	112.4	111.7	108.0	108.2	105.8	104.9	105.7	105.4	97.2	103.9
Stone, clay and glass products	101.7	101.5	105.0	105.4	106.9	108.9	110.3	108.9	110.0	106.9	103.8	100.3	94.5	94.7	104.5
Primary metal industries	105.0	105.8	105.2	93.1	59.1	60.2	61.4	98.4	109.6	107.2	105.3	102.3	97.4	83.7	105.4
Fabricated metal products	110.8	111.8	110.6	101.9	105.9	111.6	107.9	110.5	115.3	112.6	109.7	107.6	104.9	101.1	115.9
Machinery (except electrical)	105.3	105.4	104.8	100.0	102.0	103.5	100.9	102.5	105.6	103.5	100.7	99.3	96.1	88.9	111.0
Electrical machinery	139.5	141.3	142.7	139.3	142.0	141.0	134.2	130.7	132.4	128.5	125.9	125.5	124.6	115.9	134.0
Transportation equipment	128.6	131.0	119.2	100.5	122.4	119.9	113.6	123.1	125.4	125.9	126.0	124.5	121.0	111.6	139.6
Instruments and related products	120.0	120.2	123.5	122.4	122.8	121.7	118.3	116.9	118.7	114.7	113.4	112.5	111.0	105.4	117.5
Miscellaneous manufacturing	98.2	97.9	103.5	108.7	111.0	109.4	105.1	98.6	101.2	98.9	97.2	95.5	93.7	92.7	101.2
Nondurable goods	90.5	91.2	93.6	94.2	95.0	97.7	97.7	93.2	93.2	90.9	90.1	90.8	90.0	88.7	93.7
Food and kindred products	74.6	77.5	81.4	84.7	88.1	96.2	97.3	86.9	84.4	79.5	77.1	76.0	75.5	84.2	86.4
Tobacco manufactures	71.4	73.6	79.6	77.9	92.6	100.0	90.6	67.0	68.2	66.5	65.5	68.1	73.0	77.7	80.8
Textile-mill products	72.5	72.7	74.6	74.8	75.6	74.5	76.1	74.2	75.9	74.4	73.8	73.7	72.9	69.2	74.7
Apparel and other finished textile products	106.5	104.8	107.0	108.0	105.9	107.0	109.7	102.6	104.2	102.7	102.8	105.4	105.3	96.8	102.0
Paper and allied products	109.6	111.1	112.9	113.6	114.2	116.6	115.0	113.5	114.4	112.3	111.0	110.5	109.6	108.0	113.9
Printing and publishing	113.1	113.9	117.5	115.3	115.7	116.8	112.9	111.4	111.7	111.4	111.3	111.4	109.3	109.0	112.4
Chemicals and allied products	105.6	105.5	106.5	106.5	106.3	108.3	103.7	102.5	103.6	105.0	105.3	103.0	101.0	99.2	106.2
Products of petroleum and coal	80.9	81.6	83.1	83.4	81.3	84.0	81.0	86.1	86.8	86.4	86.3	87.2	80.2	84.2	91.1
Rubber products	105.2	106.3	106.5	104.2	108.9	110.2	108.3	108.6	99.2	90.8	92.4	106.2	104.0	92.0	104.8
Leather and leather products	90.7	91.7	92.1	91.0	88.4	90.8	94.6	94.5	94.0	90.1	88.5	92.8	95.1	86.0	90.8
Payrolls															
Mining	.....	105.2	110.5	104.4	95.9	94.3	98.4	106.5	115.4	110.7	106.5	105.3	106.2	104.9	124.3
Contract construction	.....	183.5	214.8	221.8	239.1	242.9	257.7	244.4	240.0	223.3	205.8	179.9	160.5	200.5	207.1
Manufacturing	173.4	175.5	175.4	166.8	165.9	169.1	164.9	170.2	174.4	169.6	167.0	165.1	160.4	148.7	162.7

[1] For comparability of data with those published in issues prior to August 1958, see footnote 1, table A–2.

For mining and manufacturing, data refer to production and related workers; for contract construction, to construction workers.

[2] Preliminary.

TABLE C–4. Gross and spendable average weekly earnings of production workers in manufacturing, in current and 1947–49 dollars [1]

Item	1960	1959											Annual average	
	Jan. [2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1958	1957
Manufacturing															
Gross average weekly earnings:															
Current dollars	$92.29	$92.16	$88.98	$89.06	$89.47	$88.70	$89.65	$91.17	$90.32	$89.87	$89.24	$88.00	$87.38	$83.50	$82.39
1947–49 dollars	73.60	73.43	70.84	70.96	71.46	71.07	71.78	73.23	72.84	72.53	72.14	71.14	70.58	67.61	68.54
Spendable average weekly earnings:															
Worker with no dependents:															
Current dollars	74.56	74.92	72.45	72.51	72.83	72.23	72.97	74.15	73.49	73.14	72.65	71.69	71.20	68.46	67.57
1947–49 dollars	59.46	59.70	57.68	57.78	58.17	57.88	58.42	59.56	59.27	59.03	58.73	57.95	57.51	55.43	56.21
Worker with 3 dependents:															
Current dollars	82.14	82.50	79.97	80.03	80.36	79.75	80.58	81.71	81.03	80.68	80.18	79.19	78.70	75.88	74.97
1947–49 dollars	65.50	65.74	63.67	63.77	64.19	63.90	64.45	65.63	65.35	65.12	64.82	64.02	63.57	61.44	62.37

[1] See footnote 1, table C–3.

Spendable average weekly earnings are obtained by deducting from gross average weekly earnings, Federal social security and income taxes for which the worker is liable. The amount of tax liability depends, of course, on the number of dependents supported by the worker as well as on the level of his gross income. Spendable earnings have been computed for 2 types of income receivers: (1) a worker with no dependents; (2) a worker with 3 dependents. The primary value of the spendable series is that of measuring relative changes in disposable earnings for 2 types of income receivers.

The computations of spendable earnings for both the worker with no dependents and the worker with 3 dependents are based upon the gross average weekly earnings for *all* production workers in manufacturing without direct regard to marital status, family composition, or other sources of income.

Gross and spendable average weekly earnings expressed in 1947–49 dollars indicate changes in the level of average weekly earnings after adjustment for changes in purchasing power as measured by the Bureau's Consumer Price Index.

[2] Preliminary.

NOTE: For a description of these series, see The Calculation and Uses of the Spendable Earnings Series (in Monthly Labor Review, January 1959, pp. 50–54).

D.—Consumer and Wholesale Prices

TABLE D–1. Consumer Price Index[1]—All-city average: All items, groups, subgroups, and special groups of items

[1947–49=100]

Group	1960		1959											Annual average	
	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1959	1958
All items	125.6	125.4	125.5	125.6	125.5	125.2	124.8	124.9	124.5	124.0	123.9	123.7	123.7	124.6	123.5
Food [2]	117.4	117.6	117.8	117.9	118.4	118.7	118.3	119.4	118.9	117.7	117.6	117.7	118.2	118.3	120.3
Food at home	114.4	114.7	115.0	115.1	115.8	116.2	115.7	117.1	116.6	115.2	115.3	115.5	116.1	115.9	118.8
Cereals and bakery products	135.2	134.8	134.5	134.2	134.1	134.1	134.0	134.4	134.2	134.5	134.1	134.1	133.8	134.2	133.1
Meats, poultry, and fish	106.2	105.4	106.6	107.9	109.0	110.4	109.9	112.0	111.6	111.6	111.5	111.3	112.6	110.7	116.1
Dairy products	116.5	116.5	116.7	116.0	116.1	115.5	114.1	113.3	112.3	112.6	112.9	113.8	114.0	114.3	113.8
Fruits and vegetables	125.9	125.7	125.5	123.4	124.5	124.1	125.6	130.8	134.5	125.6	123.6	120.7	121.2	125.1	127.1
Other foods at home [3]	102.9	104.5	105.4	106.4	107.0	107.6	106.2	105.7	102.3	102.8	104.7	107.3	108.1	106.1	112.4
Housing [4]	131.2	130.7	130.4	130.4	130.1	129.7	129.3	129.0	128.9	128.8	128.7	128.7	128.5	129.2	127.7
Rent	141.0	140.9	140.8	140.5	140.4	140.0	139.8	139.6	139.5	139.3	139.3	139.1	139.0	139.7	137.7
Gas and electricity	124.0	123.2	122.7	121.7	121.7	121.6	120.1	119.5	119.3	118.7	118.2	118.5	118.5	119.9	117.0
Solid fuels and fuel oil	139.0	139.0	137.3	135.9	135.5	135.0	133.9	134.0	133.9	135.3	138.7	140.3	140.0	136.6	134.9
Housefurnishings	104.3	104.0	104.2	104.4	104.1	104.0	103.6	104.0	104.1	103.7	103.8	103.8	103.8	103.9	103.9
Household operation	136.3	135.9	135.5	135.4	135.3	135.2	134.6	134.3	133.9	133.8	133.8	133.7	133.1	134.3	131.4
Apparel	108.4	107.9	109.2	109.4	109.4	109.0	108.0	107.5	107.3	107.3	107.0	107.0	106.7	107.9	107.6
Men's and boys'	108.7	108.8	109.1	109.1	108.9	109.2	108.8	108.3	108.1	108.2	108.6	107.8	107.8	108.4	108.6
Women's and girls'	99.3	98.0	100.3	100.9	101.3	100.5	98.8	98.8	98.8	99.0	98.9	99.0	98.8	99.5	99.1
Footwear	138.7	139.4	139.7	139.2	138.5	137.9	137.3	135.2	134.5	133.5	132.4	132.0	131.3	135.2	129.8
Other apparel [5]	92.8	92.2	93.1	93.3	92.9	92.9	92.5	92.3	91.8	92.1	91.9	91.8	91.7	92.3	92.0
Transportation	147.9	148.1	148.7	149.0	148.5	146.4	146.7	146.3	145.9	145.4	145.3	144.9	144.3	146.3	140.5
Private	136.4	136.8	137.5	137.9	137.4	135.3	135.5	135.2	134.9	134.5	134.4	134.0	133.3	135.2	129.7
Public	199.3	197.2	197.2	196.0	195.9	194.9	194.9	194.2	192.7	192.7	192.6	192.2	191.8	193.9	188.0
Medical care	154.7	153.5	153.2	153.0	152.5	152.2	151.4	151.0	150.6	150.2	149.6	149.2	149.0	150.8	144.6
Personal care	132.6	132.7	132.9	132.7	132.5	132.1	131.7	131.3	131.1	130.7	130.0	129.7	129.8	131.2	128.6
Reading and recreation	120.6	120.3	120.4	120.0	119.7	119.6	119.1	119.1	118.1	117.8	117.7	117.3	117.1	118.6	116.7
Other goods and services	131.8	131.8	131.7	131.6	131.6	131.5	131.1	130.8	129.2	128.4	128.2	127.3	127.4	129.7	127.2
Special groups:															
All items less food	129.7	129.4	129.5	129.5	129.2	128.7	128.2	127.9	127.5	127.3	127.1	126.9	126.7	127.9	125.5
All items less shelter	123.0	122.9	123.1	123.1	123.2	122.9	122.4	122.7	122.2	121.6	121.5	121.4	121.4	122.2	121.2
All commodities less food	116.0	115.9	116.4	116.5	116.3	115.7	115.3	115.1	114.7	114.5	114.5	114.4	114.2	115.1	113.4
All commodities	116.7	116.7	117.1	117.2	117.3	117.0	116.6	117.0	116.6	115.9	115.9	115.9	116.0	116.6	116.3
Nondurables [6]	118.0	118.1	118.5	118.6	118.8	118.8	118.3	118.7	118.2	117.4	117.4	117.4	117.6	118.1	118.6
Nondurables less food	119.4	119.2	119.9	119.8	119.8	119.3	118.6	118.1	117.8	117.5	117.5	117.4	117.1	118.3	116.9
Nondurables less food and apparel	128.8	128.9	129.1	128.9	128.8	128.2	127.8	127.3	126.8	126.3	126.6	126.4	126.1	127.3	125.6
Durables [7]	113.6	113.6	113.8	114.1	113.6	112.8	112.8	113.1	112.8	112.7	112.6	112.5	112.2	113.0	110.5
Durables less cars	103.4	103.4	103.3	103.4	103.3	103.1	103.0	103.5	103.3	103.4	103.3	103.2	103.2	103.3	103.4
All services [8]	148.9	148.2	147.8	147.6	147.3	146.9	146.3	145.8	145.4	145.2	144.8	144.4	144.2	145.8	142.4
All services less rent	150.9	150.1	149.7	149.5	149.1	148.7	148.1	147.5	147.1	146.9	146.4	145.9	145.7	147.5	143.8
Household operation services, gas, and electricity	137.8	137.2	136.7	136.3	136.3	136.2	135.1	134.6	134.3	134.1	133.9	133.8	133.3	134.8	131.4
Transportation services	183.6	182.7	182.7	182.2	182.1	181.7	181.3	180.9	179.3	179.7	179.1	178.4	178.2	180.3	174.1
Medical care services	160.8	159.5	159.2	158.8	158.4	157.9	157.0	156.5	156.1	155.8	155.2	154.2	154.0	156.3	149.2
Other services	134.7	134.1	133.6	133.7	133.1	132.6	132.2	131.6	131.4	131.2	130.6	130.2	130.0	131.7	129.6

[1] The Consumer Price Index measures the average change in prices of goods and services purchased by urban wage-earner and clerical-worker families. Data for 46 large, medium-size, and small cities are combined for the all-city average.

[2] In addition to subgroups shown here, total food includes restaurant meals and other food bought and eaten away from home.

[3] Includes eggs, fats and oils, sugar and sweets, beverages (nonalcoholic), and other miscellaneous foods.

[4] In addition to subgroups shown here, total housing includes the purchase price of homes and other homeowner costs.

[5] Includes yard goods, diapers, and miscellaneous items.

[6] Includes food, house paint, solid fuels, fuel oil, textile housefurnishings, household paper, electric light bulbs, laundry soap and detergents, apparel (except shoe repairs), gasoline, motor oil, prescriptions and drugs, toilet goods, nondurable toys, newspapers, cigarettes, cigars, beer, and whiskey.

[7] Includes water heaters, central heating furnaces, kitchen sinks, sink faucets, porch flooring, household appliances, furniture and bedding, floor coverings, dinnerware, automobiles, tires, radio and television sets, durable toys, and sporting goods.

[8] Includes rent, home purchase, real estate taxes, mortgage interest, property insurance, repainting garage, repainting rooms, reshingling roof, refinishing floors, gas, electricity, dry cleaning, laundry service, domestic service, telephone, water, postage, shoe repairs, auto repairs, auto insurance, auto registration, transit fares, railroad fares, professional medical services, hospital services, hospitalization and surgical insurance, barber and beauty shop services, television repairs, and motion picture admissions.

TABLE D–2. Consumer Price Index [1]—All items and food indexes, by city

[1947–49=100]

City	1960		1959											Annual average	
	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1958	1957
	All items														
All-city average [2]	125.6	125.4	125.5	125.6	125.5	125.2	124.8	124.9	124.5	124.0	123.9	123.7	123.7	123.5	120.2
Atlanta, Ga.	(3)	(3)	126.4	(3)	(3)	126.0	(3)	(3)	125.5	(3)	(3)	124.3	(3)	124.5	121.4
Baltimore, Md.	(3)	(3)	127.2	(3)	(3)	127.5	(3)	(3)	126.6	(3)	(3)	126.4	(3)	124.5	121.0
Boston, Mass.	(3)	126.4	(3)	(3)	126.7	(3)	(3)	125.6	(3)	(3)	125.1	(3)	(3)	124.8	121.2
Chicago, Ill.	129.1	128.9	129.0	129.1	129.3	129.2	128.3	128.3	127.7	127.4	127.4	127.2	127.1	127.0	123.3
Cincinnati, Ohio	(3)	(3)	123.8	(3)	(3)	123.6	(3)	(3)	123.1	(3)	(3)	122.2	(3)	122.3	119.6
Cleveland, Ohio	126.1	(3)	(3)	126.4	(3)	(3)	125.8	(3)	(3)	125.3	(3)	(3)	124.8	124.8	122.1
Detroit, Mich.	123.9	123.4	124.0	124.1	124.9	124.8	123.7	124.4	123.4	123.4	123.5	123.2	123.3	123.9	122.2
Houston, Tex.	125.6	(3)	(3)	125.4	(3)	(3)	124.8	(3)	(3)	124.1	(3)	(3)	124.1	123.6	121.5
Kansas City, Mo.	(3)	127.0	(3)	(3)	126.9	(3)	(3)	126.0	(3)	(3)	125.5	(3)	(3)	124.1	121.1
Los Angeles, Calif.	128.9	129.3	128.9	128.8	128.5	127.8	127.5	127.6	127.0	126.8	126.6	126.6	126.7	125.4	121.2
Minneapolis, Minn.	(3)	126.2	(3)	(3)	126.5	(3)	(3)	125.4	(3)	(3)	125.1	(3)	(3)	124.3	121.1
New York, N.Y.	124.4	124.1	124.2	124.1	123.7	123.5	123.0	123.5	122.5	122.1	122.0	121.7	121.7	121.1	117.6
Philadelphia, Pa.	125.5	125.5	126.5	126.2	126.0	125.8	124.4	124.2	124.0	123.2	123.6	123.4	123.3	123.1	120.8
Pittsburgh, Pa.	(3)	126.6	(3)	(3)	126.8	(3)	(3)	125.7	(3)	(3)	124.5	(3)	(3)	124.0	120.2
Portland, Oreg.	(3)	127.5	(3)	(3)	126.3	(3)	(3)	126.1	(3)	(3)	125.3	(3)	(3)	124.4	121.7
St. Louis, Mo.	(3)	(3)	126.6	(3)	(3)	126.4	(3)	(3)	126.3	(3)	(3)	126.0	(3)	124.7	121.2
San Francisco, Calif.	(3)	(3)	131.8	(3)	(3)	130.8	(3)	(3)	129.4	(3)	(3)	129.0	(3)	127.5	123.1
Scranton, Pa.	121.4	(3)	(3)	121.5	(3)	(3)	121.2	(3)	(3)	120.0	(3)	(3)	120.3	120.2	116.9
Seattle, Wash.	129.2	(3)	(3)	129.2	(3)	(3)	128.9	(3)	(3)	127.9	(3)	(3)	126.9	125.8	123.1
Washington, D.C.	121.9	(3)	(3)	121.7	(3)	(3)	122.0	(3)	(3)	121.8	(3)	(3)	121.3	121.1	118.3
	Food														
All-city average [2]	117.4	117.6	117.8	117.9	118.4	118.7	118.3	119.4	118.9	117.7	117.6	117.7	118.2	120.3	115.4
Atlanta, Ga.	114.1	114.5	114.2	114.3	115.3	116.5	116.4	117.0	117.1	115.6	115.7	114.9	115.5	118.0	113.3
Baltimore, Md.	116.7	116.2	117.4	117.8	118.1	118.8	118.3	119.4	118.6	117.0	117.3	117.2	117.4	120.9	116.8
Boston, Mass.	117.7	117.4	118.3	119.4	119.6	119.8	119.0	118.9	118.4	117.5	117.3	118.3	118.8	119.7	115.0
Chicago, Ill.	114.4	115.2	114.6	115.3	116.2	116.8	116.1	117.1	116.4	115.2	115.2	115.4	115.2	117.3	112.9
Cincinnati, Ohio	117.8	117.7	118.2	118.4	119.0	119.2	118.2	119.9	119.3	117.7	118.1	117.8	119.1	122.1	117.3
Cleveland, Ohio	112.9	113.1	113.4	113.1	113.5	114.2	113.8	114.6	114.6	114.1	114.3	114.2	114.3	117.2	113.4
Detroit, Mich.	115.7	115.8	116.3	116.9	118.1	118.1	116.8	118.0	118.7	116.9	117.2	117.0	117.7	121.1	117.3
Houston, Tex.	113.3	113.6	113.5	113.9	114.1	114.1	114.4	114.9	114.4	114.6	114.7	115.6	116.0	117.0	113.1
Kansas City, Mo.	110.4	111.3	111.4	111.3	111.9	112.6	112.4	112.9	113.1	111.5	111.6	111.6	112.1	114.4	111.5
Los Angeles, Calif.	123.7	125.2	123.6	123.6	124.0	123.7	122.7	123.3	123.6	122.9	123.1	123.4	123.8	123.3	117.9
Minneapolis, Minn.	116.5	117.0	117.3	117.9	117.8	118.0	117.5	119.2	118.8	117.5	118.1	(4)	117.7	118.6	114.2
New York, N.Y.	120.8	120.5	120.8	120.7	120.4	120.9	120.0	122.4	120.0	119.2	119.5	119.3	119.9	120.9	115.0
Philadelphia, Pa.	119.1	119.5	120.1	120.6	121.4	122.0	120.9	121.9	121.3	119.3	120.2	120.4	120.8	123.1	118.5
Pittsburgh, Pa.	118.6	118.7	119.1	119.6	120.1	120.7	119.5	120.5	120.8	119.4	118.7	118.8	119.8	121.8	116.8
Portland, Oreg.	120.2	121.2	121.0	120.7	121.1	121.2	121.2	121.6	121.8	120.0	119.2	119.4	120.3	120.7	117.0
St. Louis, Mo.	117.5	116.2	117.6	117.7	118.3	118.7	117.8	119.1	119.7	118.7	118.7	118.7	119.2	121.2	116.3
San Francisco, Calif.	122.2	123.6	123.1	122.3	122.9	122.8	122.0	122.2	123.0	122.3	122.2	122.8	122.7	123.1	117.8
Scranton, Pa.	113.0	113.5	113.9	114.3	115.3	116.4	115.1	117.3	116.6	114.8	114.4	114.8	115.8	118.4	112.7
Seattle, Wash.	121.0	121.4	121.1	120.8	121.1	120.8	120.8	121.4	121.6	120.7	120.2	119.6	119.9	121.3	117.1
Washington, D.C.	117.2	117.3	118.1	118.0	118.5	119.5	118.9	120.5	119.5	118.5	118.5	118.9	118.8	121.6	116.9

[1] See footnote 1, table D–1. Indexes measure time-to-time changes in prices of goods and services purchased by urban wage-earner and clerical-worker families. They do not indicate whether it costs more to live in one city than in another.

[2] Average of 46 cities.

[3] All items indexes are computed monthly for 5 cities and once every 3 months on a rotating cycle for 15 other cities.

[4] Not available.

TABLE D–3. Indexes of wholesale prices,[1] by group and subgroup of commodities

[1947–49=100, unless otherwise specified]

Commodity group	1960		1959											Annual average	
	Feb.[2]	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1959[2]	1958
All commodities	119.4	119.3	118.9	118.9	119.1	119.7	119.1	119.5	119.7	119.9	120.0	119.6	119.5	119.5	119.2
Farm products and processed foods	96.5	96.3	95.5	95.4	96.7	98.6	96.7	98.2	99.2	99.5	100.0	99.3	99.6	98.2	103.1
Farm products	87.0	86.5	85.9	85.4	86.5	88.9	87.1	88.4	89.8	90.8	92.4	90.8	91.1	89.1	94.9
Fresh and dried fruits and vegetables	100.5	[3]104.9	107.9	103.2	102.2	103.1	92.8	98.5	100.9	107.0	114.2	93.6	105.9	102.7	112.0
Grains	76.7	77.2	76.1	76.5	75.7	76.2	77.7	78.2	78.2	78.6	79.7	77.7	77.0	77.3	79.5
Livestock and live poultry	80.8	78.5	76.0	75.3	78.5	82.1	83.1	84.8	89.5	90.6	91.9	91.1	88.4	85.1	92.9
Plant and animal fibers	96.1	96.9	95.7	94.7	94.7	95.6	95.7	100.0	101.6	101.9	101.0	99.5	99.1	98.2	101.5
Fluid milk	98.7	[3]99.3	[3]98.3	98.2	97.3	96.0	94.4	92.2	90.0	90.2	91.9	93.5	95.5	94.4	94.6
Eggs	58.4	56.9	62.8	63.4	60.0	55.4	66.8	65.4	56.5	51.1	54.5	70.5	69.3	65.6	81.7
Hay, hayseeds, and oilseeds	77.1	[3]77.5	76.3	76.3	75.4	73.0	73.1	74.9	78.0	80.3	79.5	78.4	78.0	76.6	76.9
Other farm products	128.9	127.4	127.5	131.7	131.5	133.4	132.1	132.2	132.8	133.5	133.5	133.8	134.8	132.6	140.4
Processed foods	105.7	[3]105.6	104.7	104.9	106.4	107.8	105.8	107.5	108.1	107.7	107.2	107.2	107.6	107.0	110.9
Cereal and bakery products	120.7	[3]120.7	120.4	120.4	120.4	119.5	119.5	119.5	119.2	119.5	118.9	119.0	117.7	119.3	117.9
Meats, poultry, and fish	93.0	[3]92.4	90.5	90.8	95.1	99.7	94.8	99.3	101.9	101.4	100.8	99.6	100.9	98.2	105.7
Dairy products and ice cream	118.4	[3]118.8	118.1	117.7	116.7	116.2	114.7	113.9	111.9	111.7	112.0	113.0	113.0	114.3	112.7
Canned and frozen fruits and vegetables	105.0	104.5	104.6[r]	106.4	107.4	106.9	107.9	110.6	111.1	110.4	110.6	111.2	110.6	109.0	109.7
Sugar and confectionery	113.9	113.3	115.6	116.7	117.4	116.4	115.5	115.2	115.6	114.4	112.1	112.9	113.8	115.1	115.6
Packaged beverage materials	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	148.0	149.7	146.5	165.7
Animal fats and oils	49.4	[3]48.7	50.1	54.2	53.2	53.5	50.9	52.7	54.4	56.9	57.9	57.0	57.1	54.6	72.0
Crude vegetable oils	45.3	[3]46.0	45.0	45.8	48.7	52.0	55.6	57.3	58.9	57.7	54.6	53.7	53.6	53.1	60.1
Refined vegetable oils	54.5	54.8	52.5	52.6	54.0	55.5	57.9	61.9	61.9	61.9	59.3	59.3	59.3	58.0	67.9
Vegetable oil end products	71.2	[3]71.2	71.1	71.9	73.6	74.2	74.1	74.9	74.6	73.9	73.9	73.9	75.0	74.0	82.8
Other processed foods	101.6	103.9	100.0	98.3	96.8	96.9	96.6	96.1	95.4	95.8	95.3	95.7	97.2	96.7	96.6
All commodities except farm products	124.7	[3]124.8	124.4	124.4	124.5	124.8	124.5	124.7	124.6	124.7	124.6	124.4	124.2	124.5	123.3
All commodities except farm and foods	128.8	128.8	128.6	128.5	128.4	128.4	128.4	128.4	128.2	128.4	128.3	128.1	127.8	128.2	126.0
Textile products and apparel	96.5	[3]96.6	96.7	96.3	95.9	95.9	95.7	95.3	94.9	94.5	94.1	93.9	93.7	95.0	93.5
Cotton products	95.8	95.9	95.0	94.0	93.0	92.6	92.1	91.9	91.6	90.8	90.3	90.2	89.6	91.7	88.4
Wool products	103.2	[3]104.0	104.2	103.7	104.1	104.7	104.3	103.3	102.2	101.1	99.4	97.7	97.6	101.6	100.8
Manmade fiber textile products	79.8	[3]79.4	81.3	81.4	81.0	82.1	82.3	82.2	81.5	81.0	80.6	80.1	79.8	81.1	80.2
Silk products	119.5	122.0	121.7	117.4	114.2	113.2	113.7	113.4	114.2	114.0	113.6	112.1	109.3	113.5	113.5
Apparel	100.6	[3]100.8	100.9	100.9	100.6	100.6	100.4	99.9	99.6	99.6	99.3	99.3	99.3	100.0	99.3
Other textile products	79.8	79.3	79.4	78.4	78.5	77.3	75.2	75.5	75.6	75.7	75.7	76.1	78.0	76.8	75.2
Hides, skins, leather, and leather products	112.0	[3]112.7	112.3	111.7	116.2	119.1	119.7	119.3	118.9	118.5	117.8	108.5	105.4	114.3	100.6
Hides and skins	69.8	73.7	73.8	67.2	87.5	102.4	106.9	107.7	106.7	98.6	108.5	87.7	73.0	90.7	87.5
Leather	104.8	105.5	103.5	103.8	112.2	117.1	117.3	118.7	120.1	124.5	120.4	103.6	101.0	111.8	92.3
Footwear	134.2	134.2	134.1	133.8	133.5	132.3	132.3	130.6	130.2	129.5	128.2	123.6	123.3	129.5	122.1
Other leather products	107.2	[3]108.0	107.8	109.3	111.3	113.9	114.0	113.9	112.0	112.4	110.1	103.4	100.8	109.0	97.5
Fuel, power, and lighting materials	112.0	111.9	111.7	111.2	111.4	111.9	112.2	111.1	111.2	113.4	114.0	115.0	114.8	112.7	112.7
Coal	124.1	124.1	124.1	124.0	123.6	123.0	122.0	121.1	119.8	118.9	119.3	124.6	126.2	122.6	122.9
Coke	170.4	170.4	170.4	170.4	170.4	170.4	170.4	170.4	170.4	170.4	170.4	170.4	170.4	169.8	161.9
Gas fuels[4]	115.3	[3]116.6	115.5	113.8	111.1	112.8	109.2	105.8	106.8	109.9	108.6	113.1	112.0	110.9	101.7
Electric power[4]	101.8	101.3	101.2	100.7	100.7	100.8	100.6	100.6	100.8	100.9	100.8	100.9	100.8	100.8	100.4
Petroleum and products	114.6	114.4	114.3	113.9	114.5	115.1	116.2	114.8	115.0	118.3	119.4	119.9	119.5	116.6	117.7
Chemicals and allied products	110.0	109.9	110.0	110.0	110.0	109.9	109.7	109.9	110.0	110.0	110.0	109.8	109.9	109.9	110.4
Industrial chemicals	124.2	124.1	124.0	123.9	123.9	123.8	123.7	123.9	123.8	123.8	123.9	123.6	123.7	123.8	123.5
Prepared paint	128.3	128.3	128.3	128.3	128.3	128.3	128.3	128.3	128.3	128.3	128.3	128.4	128.4	128.3	128.3
Paint materials	103.0	103.0	103.1	102.9	102.6	102.1	101.5	101.3	101.4	101.4	101.4	101.3	101.4	101.9	103.6
Drugs and pharmaceuticals	94.0	93.8	93.7	93.8	93.8	93.7	93.6	93.7	93.4	93.1	92.9	92.8	93.0	93.4	94.0
Fats and oils, inedible	49.4	49.2	50.8	52.2	54.5	55.0	53.8	55.3	58.4	60.4	60.4	60.3	58.9	56.7	62.6
Mixed fertilizer	109.9	109.9	109.8	109.5	109.4	109.4	109.2	108.8	108.9	108.9	109.6	110.0	109.8	109.5	110.7
Fertilizer materials	108.8	[3]108.8	107.0	106.6	106.3	105.2	104.8	107.4	107.6	107.5	107.5	107.5	107.5	106.9	108.0
Other chemicals and allied products	106.5	106.5	106.8	106.8	106.8	106.8	106.7	106.6	106.5	106.4	106.3	106.1	106.5	106.6	106.8
Rubber and rubber products	145.1	143.5	142.5	144.9	142.3	142.0	141.0	146.4	146.6	148.0	146.7	146.0	145.4	144.8	145.0
Crude rubber	160.7	162.8	160.5	173.6	159.6	157.9	153.8	149.3	148.7	152.9	146.9	142.4	139.4	152.0	134.0
Tires and tubes	138.1	133.3	133.3	133.3	133.3	134.3	134.3	150.0	150.0	151.9	151.9	151.9	151.9	144.0	152.4
Other rubber products	144.6	[3]144.6	143.0	143.0	143.0	142.2	141.4	141.6	142.4	142.3	141.9	141.9	141.9	142.2	142.7
Lumber and wood products	124.7	[3]125.1	124.8	124.3	126.2	127.2	128.5	128.3	128.9	128.2	126.3	124.2	122.5	125.8	117.7
Lumber	125.6	[3]126.1	125.9	125.8	127.9	129.3	130.3	129.9	130.4	128.9	126.8	125.5	123.1	127.1	118.0
Millwork	137.7	137.8	137.9	138.1	138.7	138.7	138.6	137.7	137.3	137.5	135.4	130.2	130.2	135.9	128.2
Plywood	97.0	[3]98.2	97.2	94.5	96.5	96.6	100.9	102.4	105.2	106.6	106.6	104.0	103.6	101.2	97.1
Pulp, paper, and allied products	133.2	[3]133.7	132.4	132.3	132.5	132.4	132.3	132.4	132.3	132.0	132.2	132.0	131.7	132.2	131.0
Woodpulp	121.2	121.2	121.2	121.2	121.2	121.2	121.2	121.2	121.2	121.2	121.2	121.2	121.2	121.2	121.2
Wastepaper	93.6	108.0	109.8	109.8	115.0	118.0	115.9	115.9	115.9	110.5	115.7	115.7	107.1	112.5	88.3
Paper	144.5	144.5	144.3	144.3	144.3	143.8	143.7	143.6	143.3	143.3	143.3	142.1	142.1	143.4	142.3
Paperboard	135.9	135.9	135.9	135.9	135.9	135.9	135.9	135.9	136.2	136.2	136.2	136.2	136.2	136.1	136.2
Converted paper and paperboard products	130.0	[3]130.0	127.5	127.4	127.4	127.3	127.4	127.6	127.6	127.3	127.5	127.6	127.6	127.5	127.6
Building paper and board	147.6	147.6	147.6	147.6	147.6	147.6	147.6	147.3	146.7	146.7	145.0	144.2	144.2	146.4	143.2
Metals and metal products	155.4	[3]155.5	155.2	155.8	154.5	153.8	152.8	152.7	153.3	153.0	152.8	153.6	153.4	153.6	150.4
Iron and steel	171.6	172.4	172.2	173.6	173.1	172.4	171.9	171.8	171.3	170.4	170.8	171.9	172.5	172.0	168.8
Nonferrous metals	142.1	142.2	140.7	141.1	137.2	136.1	133.9	133.8	136.1	136.2	134.7	136.1	134.1	136.1	127.7
Metal containers	154.8	152.9	152.9	152.9	152.9	152.9	152.9	152.9	152.9	152.9	152.9	156.3	156.3	153.7	155.7
Hardware	173.4	173.4	173.2	173.2	173.1	173.0	172.9	173.0	173.0	173.0	173.0	173.0	172.9	173.0	170.8
Plumbing fixtures and brass fittings	133.9	134.0	133.2	132.4	131.0	131.0	131.0	130.9	130.9	130.9	129.8	129.2	126.0	130.1	123.7
Heating equipment	120.3	[3]120.9	121.6	121.5	121.5	121.4	121.6	121.7	121.7	121.7	121.7	121.9	122.0	121.7	121.2
Fabricated structural metal products	135.6	[3]135.4	135.4	135.4	134.5	134.2	132.3	132.3	132.3	132.3	132.3	132.3	134.0	133.4	133.9
Fabricated nonstructural metal products	146.4	[3]146.3	146.5	147.2	146.7	146.1	145.1	145.3	146.1	146.1	146.0	145.9	145.8	146.0	145.7

See footnotes at end of table.

TABLE D-3. Indexes of wholesale prices,[1] by group and subgroup of commodities—Continued

[1947-49=100, unless otherwise specified]

Commodity group	1960		1959											Annual average	
	Feb.[2]	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1959[3]	1958
Machinery and motive products	154.1	153.8	153.7	153.6	153.7	153.9	153.8	153.6	153.0	152.5	152.1	152.2	152.0	153.0	149.8
Agricultural machinery and equipment	145.5	144.3	144.0	143.9	143.4	143.5	143.4	143.4	143.5	143.5	143.0	143.1	143.0	143.3	139.1
Construction machinery and equipment	173.9	173.6	172.9	172.9	172.5	172.4	172.0	171.8	171.7	171.7	171.8	171.7	171.2	171.9	166.1
Metalworking machinery and equipment	178.0	177.7	177.6	177.5	177.4	[3]176.6	176.0	174.0	173.7	173.3	172.7	172.5	171.4	174.3	170.1
General purpose machinery and equipment	168.1	167.8	167.9	167.5	167.0	166.8	166.5	165.9	165.8	162.8	162.8	163.3	163.9	165.3	160.0
Miscellaneous machinery	149.8	149.7	149.8	149.7	149.7	149.5	149.6	149.5	149.3	149.2	149.2	149.2	149.0	149.4	148.1
Electrical machinery and equipment	156.5	[3]156.0	155.7	156.1	156.1	156.1	155.8	156.1	154.2	154.1	153.0	153.1	152.5	154.6	152.2
Motor vehicles	141.6	141.6	141.6	141.6	141.9	143.2	143.2	143.2	143.2	143.2	143.2	143.2	143.2	142.8	139.7
Furniture and other household durables	123.5	[3]123.4	123.2	123.3	123.3	123.4	123.5	123.8	123.6	123.5	123.4	123.5	123.3	123.4	123.2
Household furniture	125.0	[3]124.7	124.2	124.3	124.4	124.1	124.2	124.2	124.0	123.7	123.4	124.1	124.1	124.1	123.0
Commercial furniture	155.8	155.8	155.5	155.5	155.5	155.5	155.3	155.3	155.1	155.0	155.0	155.0	155.0	155.2	154.6
Floor coverings	129.6	[3]129.6	129.0	129.3	129.3	128.9	128.6	128.6	128.1	127.8	127.8	127.2	126.3	128.1	127.8
Household appliances	103.2	[3]103.3	[3]103.7	[3]104.1	[3]103.9	[3]104.3	[3]104.4	[3]104.4	[3]105.1	[3]105.2	[3]105.2	[3]105.2	[3]105.1	104.6	104.7
Television, radio receivers, and phonographs	91.7	[3]91.7	91.9	91.8	92.1	92.7	93.3	94.3	92.9	92.8	92.8	92.8	93.2	92.8	94.4
Other household durable goods	158.1	157.8	156.6	156.6	156.6	156.6	156.4	156.8	156.7	156.5	156.2	156.0	156.0	156.4	155.1
Nonmetallic minerals—structural	138.1	[3]138.4	137.8	137.7	137.5	137.5	137.4	137.5	137.4	138.4	138.3	137.7	137.5	137.7	136.0
Flat glass	135.3	135.3	135.3	135.3	135.3	135.3	135.3	135.3	135.3	135.2	135.2	135.2	135.2	135.3	135.4
Concrete ingredients	142.0	[3]142.0	140.4	140.4	140.4	140.4	140.4	140.4	140.1	140.2	140.2	140.2	140.2	140.3	139.0
Concrete products	131.3	[3]130.8	130.4	130.3	130.3	130.2	129.7	129.9	129.7	129.7	129.4	129.3	129.0	129.7	128.1
Structural clay products	161.3	[3]161.3	160.7	160.6	160.4	160.5	160.5	160.6	160.4	160.1	160.0	159.9	159.6	160.2	156.5
Gypsum products	133.1	133.1	133.1	133.1	133.1	133.1	133.1	133.1	133.1	133.1	133.1	133.1	133.1	133.1	132.1
Prepared asphalt roofing	106.3	113.6	113.6	113.6	110.8	110.8	111.9	111.9	113.6	126.4	126.4	119.4	119.8	116.4	112.8
Other nonmetallic minerals	133.7	132.8	132.5	132.5	132.5	132.5	132.5	132.5	132.5	132.5	132.5	132.7	132.7	131.7	132.4	131.2
Tobacco manufactures and bottled beverages	131.7	[3]131.7	131.7	131.7	131.7	131.8	131.9	132.2	132.2	132.2	132.2	132.2	132.1	128.9	131.4	128.2
Cigarettes	134.8	134.8	134.8	134.8	134.8	134.8	134.8	134.8	134.8	134.8	134.8	134.8	134.8	134.8	134.8
Cigars	106.5	106.6	106.6	106.6	106.6	106.6	106.6	106.6	106.6	106.6	106.6	106.6	106.6	106.6	106.6
Other tobacco manufactures	155.7	155.7	153.7	153.7	153.7	153.7	153.7	153.7	152.8	152.8	152.8	150.9	148.3	151.6	140.5
Alcoholic beverages	120.6	[3]120.5	120.7	120.7	120.7	120.9	121.0	121.8	121.7	121.7	121.7	121.7	121.7	121.3	120.5
Nonalcoholic beverages	171.1	171.1	171.1	171.1	171.1	171.1	171.1	171.1	171.1	171.1	171.1	171.1	148.9	167.4	149.3
Miscellaneous products	93.4	[3]93.3	94.2	93.7	91.8	88.6	92.0	92.9	91.0	95.2	98.8	97.0	98.5	94.5	94.2
Toys, sporting goods, small arms, and ammunition	117.8	[3]117.7	118.0	117.7	117.7	117.7	117.7	117.5	117.0	117.0	116.9	117.2	117.9	117.5	119.0
Manufactured animal feeds	72.2	[3]75.6	74.0	73.7	70.3	64.5	70.6	72.2	69.0	76.6	82.9	79.6	82.2	75.1	74.4
Notions and accessories	97.5	97.5	97.5	97.5	97.5	96.3	96.3	97.5	97.5	97.5	97.5	97.5	97.5	97.3	97.5
Jewelry, watches, and photographic equipment	110.6	[3]110.6	109.5	108.3	108.3	108.3	108.3	108.1	108.1	108.1	108.2	108.2	108.1	108.3	107.6
Other miscellaneous products	131.5	[3]131.9	131.9	131.9	132.0	132.0	132.0	131.9	132.0	132.3	132.6	132.6	132.4	132.2	132.2

[1] As of January 1958, new weights reflecting 1954 values were introduced into the index. [2] Technical details furnished upon request to the Bureau.
[3] Preliminary. [4] Revised. [5] January 1958=100.

TABLE D–4. Indexes of wholesale prices,[1] by stage of processing and durability of product

[1947–49=100]

Commodity group	1960		1959											Annual average	
	Feb.[2]	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1959[2]	1958
All commodities	119.4	119.3	118.9	118.9	119.1	119.7	119.1	119.5	119.7	119.9	120.0	119.6	119.5	119.5	119.2
Stage of processing															
Crude materials for further processing	94.8	[3] 94.6	93.4	93.6	94.4	95.9	95.6	96.4	98.1	98.5	99.6	98.9	98.0	96.7	99.4
Crude foodstuffs and feedstuffs	84.7	[3] 83.7	82.1	81.8	83.2	85.3	85.2	86.3	88.7	89.7	91.1	89.8	89.0	86.8	92.8
Crude nonfood materials except fuel	110.5	111.7	111.4	112.8	112.3	112.7	112.1	112.6	113.1	112.3	112.6	112.7	111.3	112.2	108.4
Crude nonfood materials, except fuel, for manufacturing	108.8	110.1	109.9	111.4	110.9	111.3	110.6	111.2	111.8	110.9	111.2	111.3	109.8	110.8	106.8
Crude nonfood materials, except fuel, for construction	142.0	[3] 142.0	140.4	140.4	140.4	140.4	140.4	140.4	140.1	140.2	140.2	140.2	140.2	140.3	139.0
Crude fuel	125.7	[3] 126.0	125.7	125.2	124.2	124.2	122.5	119.7	120.3	120.3	120.3	125.4	126.4	123.4	121.2
Crude fuel for manufacturing	125.2	[3] 125.5	125.2	124.7	123.7	123.7	122.1	119.3	119.9	119.9	119.9	124.9	125.9	122.9	120.9
Crude fuel for nonmanufacturing	126.5	126.9	126.6	126.0	124.9	124.9	123.2	120.3	120.9	121.0	120.9	126.3	127.2	124.1	121.8
Intermediate materials, supplies, and components	127.4	[3] 127.5	127.3	127.3	127.1	126.9	127.0	127.2	127.1	127.4	127.2	126.7	126.5	127.0	125.3
Intermediate materials and components for manufacturing	129.5	[3] 129.5	129.4	129.5	129.4	129.4	129.1	129.4	129.5	129.3	128.6	128.2	128.0	129.0	127.2
Intermediate materials for food manufacturing	97.2	[3] 97.4	97.0	97.8	98.5	99.1	98.6	99.3	99.5	99.0	97.4	97.7	98.5	98.5	102.2
Intermediate materials for nondurable manufacturing	106.9	[3] 106.9	107.0	106.8	106.9	107.2	107.0	107.0	106.8	106.8	106.4	105.2	104.8	106.4	104.7
Intermediate materials for durable manufacturing	158.9	159.0	158.6	159.0	158.5	158.2	157.6	157.8	158.5	158.1	157.7	157.6	157.1	157.9	154.3
Components for manufacturing	152.8	[3] 152.3	152.7	152.6	151.8	151.5	151.3	152.1	152.2	151.9	150.9	151.1	151.0	151.7	149.5
Materials and components for construction	137.0	137.2	136.9	136.7	136.9	137.0	137.1	137.0	137.4	137.2	136.8	136.7	135.3	136.5	132.9
Processed fuels and lubricants	106.1	105.4	105.3	105.0	105.3	106.0	106.3	105.1	105.2	107.0	107.3	107.4	106.8	106.0	106.5
Processed fuels and lubricants for manufacturing	106.5	105.9	105.6	105.0	105.1	105.6	105.7	104.6	104.8	106.2	106.4	106.6	106.2	105.6	105.8
Processed fuels and lubricants for nonmanufacturing	105.5	104.7	104.7	105.1	105.6	106.7	107.4	105.9	106.0	108.3	108.8	108.7	108.0	106.8	107.7
Containers, nonreturnable	138.3	[3] 137.9	136.3	136.2	136.2	136.1	136.2	136.5	136.6	136.6	136.7	137.8	138.0	136.7	137.4
Supplies	116.3	[3] 117.1	117.2	117.1	115.9	114.1	115.7	116.4	114.6	116.7	118.3	117.2	117.6	116.6	115.1
Supplies for manufacturing	148.4	[3] 148.3	145.5	145.7	145.8	145.8	145.0	144.8	142.5	142.2	141.8	141.6	141.3	143.5	139.9
Supplies for nonmanufacturing	101.9	[3] 103.0	104.1	103.9	102.4	100.0	102.4	103.4	101.8	104.7	107.0	105.6	106.2	104.1	103.4
Manufactured animal feeds	66.7	[3] 70.2	75.1	74.4	70.6	64.0	70.5	71.5	68.1	76.0	82.0	78.7	80.9	74.7	73.0
Other supplies	122.6	[3] 122.3	121.2	121.2	121.1	121.1	121.1	122.1	121.6	121.5	121.6	121.3	121.1	121.3	121.2
Finished goods (goods to users, including raw foods and fuels)	120.6	[3] 120.6	120.1	120.0	120.5	121.4	120.2	120.5	120.5	120.6	120.8	120.6	120.7	120.6	120.8
Consumer finished goods	112.3	[3] 112.4	111.9	111.7	112.3	113.4	111.8	112.4	112.4	112.6	112.9	112.7	112.9	112.5	113.5
Consumer foods	104.6	[3] 104.8	103.6	103.5	105.0	107.2	103.6	105.4	105.6	105.5	106.2	105.6	106.8	105.5	110.5
Consumer crude foods	89.8	[3] 91.5	94.2	92.3	93.6	98.9	88.1	89.6	86.6	87.5	92.1	89.4	95.3	91.9	101.0
Consumer processed foods	107.8	[3] 107.7	105.6	105.9	107.5	109.0	106.9	108.8	109.6	109.3	109.2	109.0	109.3	108.4	112.6
Consumer other nondurable goods	113.8	[3] 113.9	113.8	113.6	113.5	113.5	113.4	113.1	112.8	113.5	113.6	113.7	113.1	113.4	111.7
Consumer durable goods	126.4	[3] 126.4	126.2	126.1	126.2	126.6	126.7	126.7	126.7	126.6	126.5	126.5	126.4	126.5	125.0
Producer finished goods	154.0	[3] 153.8	153.5	153.6	153.6	153.8	153.6	153.6	153.5	153.2	152.9	152.8	152.4	153.2	150.3
Producer finished goods for manufacturing	159.9	[3] 159.6	158.9	158.6	158.5	158.7	158.4	158.2	158.1	158.0	157.8	157.6	157.2	158.1	155.0
Producer finished goods for nonmanufacturing	149.0	[3] 148.8	149.0	149.3	149.4	149.8	149.7	149.6	149.6	149.3	148.7	148.7	148.4	149.1	146.4
Durability of product															
Total durable goods	146.8	146.8	146.6	146.7	146.4	146.4	146.2	146.1	146.1	145.8	145.4	145.4	145.1	145.9	142.8
Total nondurable goods	104.3	104.3	103.8	103.7	104.2	105.0	104.4	105.0	103.2	105.8	106.2	105.6	105.5	105.0	106.4
Total manufactures	125.7	[3] 125.7	125.3	125.3	125.4	125.7	125.5	125.8	125.8	125.9	125.8	125.5	125.3	125.5	124.5
Durable manufactures	147.9	147.8	147.6	147.6	147.4	147.5	147.3	147.3	147.3	147.0	146.6	146.4	146.2	147.0	144.0
Nondurable manufactures	108.1	[3] 108.2	107.6	107.6	108.0	108.4	108.0	108.6	108.7	109.2	109.4	108.8	108.7	108.5	109.2
Total raw or slightly processed goods	97.8	[3] 97.8	97.2	97.1	97.8	99.3	97.7	98.3	99.0	99.5	100.6	100.1	100.2	98.9	101.6
Durable raw or slightly processed goods	114.9	[3] 117.5	116.6	120.5	117.4	115.6	113.0	111.6	116.9	108.4	109.7	116.2	115.5	114.1	108.3
Nondurable raw or slightly processed goods	96.8	[3] 96.7	96.1	95.8	96.7	98.4	96.8	97.5	98.4	99.0	100.1	99.2	99.3	98.1	101.2

[1] See footnote 1, table D–3.
[2] Preliminary.
[3] Revised.

NOTE: For description of the series by stage of processing, see New BLS Economic Sector Indexes of Wholesale Prices (in Monthly Labor Review, December 1955, pp. 1448–1453); and by durability of product and data beginning with 1947, see Wholesale Prices and Price Indexes, 1957 BLS Bull. 1235 (1958).

E.—Work Stoppages

TABLE E–1. Work stoppages resulting from labor-management disputes [1]

Month and year	Number of stoppages		Workers involved in stoppages		Man-days idle during month or year	
	Beginning in month or year	In effect during month	Beginning in month or year	In effect during month	Number	Percent of estimated working time
1935–39 (average)	2,862		1,130,000		16,900,000	0.27
1947–49 (average)	3,573		2,380,000		39,700,000	.46
1945	4,750		3,470,000		38,000,000	.47
1946	4,985		4,600,000		116,000,000	1.43
1947	3,693		2,170,000		34,600,000	.41
1948	3,419		1,960,000		34,100,000	.37
1949	3,606		3,030,000		50,500,000	.59
1950	4,843		2,410,000		38,800,000	.44
1951	4,737		2,220,000		22,900,000	.23
1952	5,117		3,540,000		59,100,000	.57
1953	5,091		2,400,000		28,300,000	.26
1954	3,468		1,530,000		22,600,000	.21
1955	4,320		2,650,000		28,200,000	.26
1956	3,825		1,900,000		33,100,000	.29
1957	3,673		1,390,000		16,500,000	.14
1958	3,694		2,060,000		23,900,000	.22
1959: February [2]	200	300	75,000	140,000	1,500,000	.18
March [2]	250	350	90,000	180,000	1,000,000	.11
April [2]	350	475	175,000	250,000	2,500,000	.26
May [2]	400	550	175,000	300,000	2,750,000	.30
June [2]	450	700	185,000	325,000	2,750,000	.28
July [2]	425	700	650,000	750,000	9,000,000	.92
August [2]	425	700	170,000	750,000	13,000,000	1.40
September [2]	400	650	100,000	760,000	14,000,000	1.50
October [2]	300	550	130,000	780,000	14,000,000	1.44
November [2]	200	300	50,000	650,000	4,500,000	.51
December [2]	150	250	20,000	100,000	900,000	.09
1960: January [2]	200	325	65,000	140,000	1,000,000	.11
February [2]	250	400	70,000	145,000	1,250,000	.14

[1] The data include all known work stoppages involving 6 or more workers and lasting a full day or shift or longer. Figures on workers involved and man-days idle cover all workers made idle for as long as 1 shift in establishments directly involved in a stoppage. They do not measure the indirect or secondary effect on other establishments or industries whose employees are made idle as a result of material or service shortages.

[2] Preliminary.

F.—Work Injuries

TABLE F-1. Injury-frequency rates [1] for selected manufacturing industries

Industry	1959 [2]							1958				1957	Annual average	
	Fourth quarter				Third quarter	Second quarter	First quarter	Fourth quarter	Third quarter	Second quarter	First quarter	Fourth quarter	1959 [2]	1958
	Oct.	Nov.	Dec.	Quarter										
All manufacturing	12.6	10.9	9.9	11.1	13.4	11.7	11.2	10.8	11.8	10.5	10.5	10.4	11.9	10.9
Food and kindred products:														
Meatpacking and custom slaughtering	23.4	24.3	24.4	24.0	26.7	23.6	25.0	22.4	24.3	21.1	18.8	20.6	24.9	21.6
Sausages and other prepared meat products	25.5	26.2	20.9	24.2	27.3	26.8	23.5	20.9	27.9	20.2	24.6	21.5	25.8	23.4
Poultry and small game dressing and packing	(3)	(3)	(3)	38.3	49.3	38.7	40.0	43.0	54.2	38.9	33.6	35.7	43.9	43.1
Dairy products	15.3	17.3	13.6	15.4	18.5	17.3	16.6	16.4	19.3	15.3	17.1	15.5	17.0	17.0
Canning and preserving	18.1	17.0	16.0	17.2	25.7	17.9	19.1	18.0	21.2	20.1	16.7	15.7	20.8	19.3
Grain-mill products	18.3	12.5	17.2	16.2	20.1	19.7	18.6	16.3	19.3	16.2	11.7	13.3	16.7	15.9
Bakery products	16.1	15.8	13.4	15.2	18.3	14.9	15.4	16.7	16.7	13.5	16.1	16.2	16.0	15.8
Cane sugar	12.7	6.9	19.4	13.0	13.3	17.3	12.7	15.3	12.8	12.9	17.0	19.3	14.2	14.5
Confectionery and related products	19.6	18.5	13.7	17.5	13.4	12.7	10.5	13.1	15.8	10.5	14.0	13.7	13.7	13.4
Bottled soft drinks	20.4	19.2	16.5	18.7	26.3	23.5	19.8	19.9	28.2	23.0	18.2	19.5	22.7	22.5
Malt and malt liquors	18.4	18.2	16.0	17.5	21.9	18.2	17.2	15.1	18.5	17.6	15.0	16.0	19.1	16.6
Distilled liquors	5.6	10.4	5.4	7.1	9.3	8.7	10.5	8.0	7.7	8.7	8.5	7.1	9.3	8.2
Miscellaneous food products	14.9	18.1	14.5	15.8	18.4	15.4	14.5	13.6	14.7	12.2	12.5	14.9	16.2	13.3
Textile-mill products:														
Cotton yarn and textiles	8.6	7.7	5.9	7.5	8.6	8.4	7.7	7.8	8.5	7.1	7.7	7.4	8.0	7.8
Rayon, other synthetic, and silk textiles	8.4	8.4	7.5	8.1	8.3	8.5	7.5	7.1	7.1	5.9	6.1	7.0	8.0	6.5
Woolen and worsted textiles	15.8	17.0	12.4	15.1	19.7	19.2	17.3	14.5	18.7	15.9	15.6	15.8	17.9	16.2
Knit goods	5.4	6.2	5.6	5.7	6.2	5.9	5.9	4.3	5.6	4.1	6.5	5.2	6.0	5.1
Dyeing and finishing textiles	14.5	14.4	13.0	14.0	13.3	11.5	11.3	14.0	15.2	13.1	13.8	12.3	12.5	14.1
Miscellaneous textile goods	16.8	17.7	9.3	14.6	19.2	14.1	15.6	12.2	17.1	14.6	9.8	13.0	15.9	13.4
Apparel and other finished textile products:														
Clothing, men's and boys'	7.6	7.2	6.1	7.0	7.2	7.1	5.9	5.4	5.2	5.8	6.4	5.2	6.8	5.7
Clothing, women's and children's	5.2	5.3	4.2	4.9	5.0	4.5	5.5	4.5	5.5	5.7	5.2	4.1	5.1	5.2
Fur goods and miscellaneous apparel	9.4	6.1	5.7	7.2	5.8	7.0	7.4	5.4	9.6	6.6	5.3	5.9	6.9	6.7
Miscellaneous fabricated textile products	8.6	11.9	5.8	8.6	8.5	9.0	9.4	8.0	11.3	8.7	9.7	8.1	8.9	9.4
Lumber and wood products (except furniture):														
Logging	62.6	61.3	67.2	63.5	77.0	61.9	62.5	63.4	68.9	64.2	57.1	61.3	65.4	63.8
Sawmills and planing mills	41.6	38.7	40.3	40.3	42.4	41.3	38.6	37.5	42.7	39.5	37.0	36.9	40.9	39.3
Millwork and structural wood products	24.3	28.4	20.8	24.6	30.7	23.6	21.3	22.4	25.7	18.9	21.1	20.1	25.1	22.1
Plywood mills	28.6	21.0	22.3	24.1	23.7	25.0	25.3	23.1	26.5	22.3	20.2	28.1	24.9	23.0
Wooden containers	25.3	30.5	26.5	27.2	34.1	24.9	33.7	26.5	31.1	27.4	25.5	23.3	29.9	27.6
Miscellaneous wood products	25.3	23.5	22.4	23.8	32.8	33.5	29.7	29.6	26.1	25.7	23.5	26.1	29.9	26.2
Furniture and fixtures:														
Household furniture, nonmetal	18.4	17.6	17.8	17.9	21.2	19.2	18.5	16.1	18.7	16.2	17.0	16.8	19.2	17.0
Metal household furniture	14.6	16.3	15.5	15.4	19.9	18.5	14.8	17.7	20.4	12.8	13.6	12.8	17.0	16.1
Mattresses and bedsprings	13.6	11.8	8.3	11.2	20.1	12.4	12.6	18.0	13.4	12.6	10.8	10.6	14.0	13.7
Office furniture	13.3	13.0	9.6	11.9	20.4	18.0	15.1	13.1	15.3	14.5	12.4	15.9	16.3	13.8
Public-building and professional furniture	(3)	(3)	(3)	13.8	13.7	14.8	17.8	12.4	15.1	13.9	10.8	17.9	14.9	13.1
Partitions and fixtures	17.0	11.3	15.1	14.6	21.6	18.6	17.3	19.9	19.2	15.4	14.5	18.3	18.1	17.2
Screens, shades, and blinds	(3)	(3)	(3)	17.8	17.8	16.7	13.4	14.2	13.0	16.8	10.5	19.2	16.3	13.6
Paper and allied products:														
Pulp, paper, and paperboard mills	9.9	9.2	8.8	9.3	10.9	9.0	9.9	9.5	10.3	8.4	9.6	10.2	9.8	r9.4
Paperboard containers and boxes	14.3	12.8	14.1	13.7	17.5	16.9	15.2	15.2	15.3	12.3	13.6	13.8	15.9	14.1
Miscellaneous paper and allied products	18.6	12.8	12.2	14.6	15.6	16.6	14.4	11.0	14.2	12.4	10.6	11.7	15.2	12.1
Printing, publishing, and allied industries:														
Newspapers and periodicals	8.6	9.7	7.8	8.7	10.3	9.0	9.5	8.4	8.6	8.5	9.0	9.5	9.4	8.6
Bookbinding and related products	(3)	(3)	(3)	16.2	14.2	17.3	13.4	12.4	9.7	9.8	14.4	10.6	15.2	11.6
Miscellaneous printing and publishing	11.7	6.8	8.6	9.1	12.2	9.4	10.1	8.6	8.3	8.5	8.8	8.7	10.1	8.5
Chemicals and allied products:														
Industrial inorganic chemicals	5.4	4.8	3.2	4.5	5.8	3.9	5.9	5.3	5.4	4.0	4.9	4.0	5.0	4.9
Plastics, except synthetic rubber	4.4	5.2	4.7	4.7	6.8	5.8	5.1	4.5	6.0	4.3	4.3	4.7	5.7	4.7
Synthetic rubber	(3)	(3)	(3)	2.3	1.2	1.4	2.5	2.3	2.6	1.5	3.3	1.2	1.8	2.5
Synthetic fibers	(3)	(3)	(3)	2.5	2.7	2.5	1.6	3.4	2.3	2.3	2.7	3.0	2.3	2.7
Explosives	(3)	(3)	(3)	2.6	(3)	3.9	1.9	1.7	3.7	1.7	2.6	2.6	2.3	2.4
Miscellaneous industrial organic chemicals	4.1	4.3	4.7	4.3	5.0	4.5	3.9	3.4	3.8	4.2	3.8	3.3	4.5	3.8
Drugs and medicines	8.7	6.0	7.6	7.5	6.3	7.2	7.3	7.7	7.6	6.5	8.2	8.8	7.1	7.5
Soap and related products	8.0	6.6	11.3	8.6	8.8	11.3	8.1	9.4	8.5	8.1	7.0	7.3	9.2	8.3
Paints, pigments, and related products	10.0	9.1	11.7	10.3	10.3	11.8	9.1	7.3	11.0	12.3	11.0	9.9	10.6	10.3
Fertilizers	(3)	(3)	(3)	19.7	23.4	25.9	19.3	11.8	13.0	17.4	15.3	16.0	22.2	14.7
Vegetable and animal oils and fats	22.3	23.2	20.1	21.9	22.7	21.9	24.6	23.6	26.1	22.3	22.2	24.3	22.8	23.5
Compressed and liquefied gases	(3)	(3)	(3)	7.7	10.2	10.3	8.8	9.0	7.5	12.6	10.6	5.7	9.2	9.9
Miscellaneous chemicals and allied products	16.8	10.4	12.3	13.2	14.0	13.9	14.7	14.0	15.5	13.1	14.3	11.5	14.0	14.2
Rubber products:														
Tires and inner tubes	3.9	4.5	3.2	3.9	4.6	4.0	2.8	3.6	3.4	3.7	2.8	2.8	3.9	3.4
Rubber footwear	2.9	5.8	5.5	4.7	5.0	9.0	5.9	4.0	5.8	6.3	4.2	5.5	6.1	5.1
Miscellaneous rubber products	10.9	10.2	7.9	9.7	11.4	9.6	10.0	7.9	11.5	10.4	8.6	9.5	10.2	9.6
Leather and leather products:														
Leather tanning and finishing	28.8	28.3	26.9	28.0	32.0	26.9	26.6	21.0	21.5	23.1	25.3	23.6	28.3	22.7
Boot and shoe cut stock and findings	(3)	(3)	(3)	(3)	(3)	20.3	20.1	(3)	(3)	(3)	(3)	(3)	18.6	16.9
Footwear (except rubber)	10.1	9.1	8.6	9.2	11.4	9.8	9.4	8.5	9.2	7.9	8.9	8.7	10.0	8.6
Miscellaneous leather products	12.1	9.6	12.5	11.4	12.9	15.3	13.8	10.0	11.5	11.9	9.0	11.9	13.7	10.6
Stone, clay, and glass products:														
Glass and glass products	10.7	10.6	9.2	10.2	10.5	10.5	11.1	9.0	10.0	8.5	8.6	9.4	10.5	9.1
Structural clay products	37.3	30.8	27.3	32.0	34.8	33.3	32.5	33.8	32.8	29.0	28.7	29.7	33.4	31.2
Pottery and related products	17.4	11.0	11.2	13.2	19.3	16.4	14.3	14.8	16.0	16.9	11.5	11.7	15.9	14.7
Concrete, gypsum, and mineral wool	25.3	24.6	19.2	23.0	34.2	27.9	22.8	24.4	28.7	24.5	19.3	19.2	27.5	24.5
Miscellaneous nonmetallic mineral products	14.7	10.3	9.7	11.6	14.8	14.3	12.2	14.7	10.4	10.7	12.4	11.5	13.2	12.1

See footnotes at end of table;

TABLE F.–1. Injury-frequency rates [1] for selected manufacturing industries—Continued

Industry	1959 [2]							1958				1957	Annual average	
	Fourth quarter				Third quarter	Second quarter	First quarter	Fourth quarter	Third quarter	Second quarter	First quarter	Fourth quarter	1958	1959 [2]
	Oct.	Nov.	Dec.	Quarter										
Primary metal industries:														
Blast furnaces and steel mills	6.1	3.8	3.6	4.1	(3)	3.9	3.9	3.7	3.7	3.6	3.6	3.9	3.7	4.2
Gray-iron and malleable foundries	28.3	24.9	19.7	24.3	28.9	27.0	25.3	21.6	25.8	21.7	22.9	21.9	23.0	26.4
Steel foundries	20.6	19.1	15.2	18.2	23.0	21.0	18.9	15.6	18.7	14.4	15.3	17.2	18.9	20.3
Nonferrous rolling, drawing, and alloying	13.1	8.6	11.9	11.3	9.3	10.8	10.4	8.4	10.6	10.4	9.3	8.8	9.7	10.4
Nonferrous foundries	19.0	22.6	19.4	20.2	18.4	17.2	18.5	19.9	14.6	16.7	16.7	16.0	17.0	18.5
Iron and steel forgings	18.5	17.4	16.4	17.5	22.0	19.0	16.2	14.1	14.5	13.6	17.4	14.9	14.9	18.6
Wire drawing	23.2	24.8	11.3	18.7	31.0	13.9	11.5	15.1	15.1	13.1	11.8	12.7	13.9	17.4
Welded and heavy-riveted pipe	11.3	8.5	14.1	11.5	(3)	7.1	8.9	10.7	11.1	12.4	11.1	11.1	11.3	9.6
Cold-finished steel	12.4	7.3	7.8	8.8	11.4	11.3	9.2	7.6	11.1	7.6	6.5	9.3	8.1	10.1
Fabricated metal products:														
Tin cans and other tinware	4.3	6.4	8.1	6.1	6.6	7.0	5.8	5.8	7.4	5.1	5.5	5.1	6.0	6.4
Cutlery and edge tools	(3)	(3)	(3)	11.9	13.7	13.1	10.1	8.7	14.9	15.6	12.6	12.5	12.9	12.1
Handtools, files, and saws	17.6	15.5	14.7	15.9	16.4	21.6	16.2	13.5	14.6	15.4	12.9	14.2	14.0	17.6
Hardware	10.4	9.5	10.3	10.1	9.5	9.3	9.1	8.7	8.0	7.7	7.1	7.7	7.9	9.5
Sanitary ware and plumbers' supplies	10.1	14.1	11.6	11.8	16.8	13.6	19.8	11.3	13.2	12.2	15.8	9.2	13.2	15.9
Oil burners, heating and cooking apparatus	18.4	15.3	8.9	14.3	18.0	18.0	15.7	16.3	13.3	12.8	15.0	13.4	14.4	15.7
Structural steel and ornamental metal work	27.2	18.3	16.3	20.2	(3)	17.5	20.6	21.0	21.2	20.9	23.1	17.8	21.6	21.3
Metal doors, sash, frame, and trim	21.9	20.4	19.3	20.6	23.2	21.2	17.2	17.5	20.0	15.7	18.6	15.9	18.0	20.6
Boiler-shop products	22.5	18.5	16.3	19.1	21.4	19.1	17.9	18.2	21.6	18.5	21.1	19.9	19.9	19.5
Sheet-metal work	25.9	16.0	23.3	21.8	24.9	27.2	21.2	17.8	20.9	20.3	20.2	18.0	19.8	23.6
Stamped and pressed metal products	11.2	9.5	9.8	10.2	11.8	12.0	9.9	10.2	10.7	8.7	9.1	9.4	9.7	11.0
Metal coating and engraving	(3)	(3)	(3)	20.2	22.8	31.0	25.6	21.2	19.6	22.1	20.2	19.7	20.8	24.4
Fabricated wire products	17.3	10.6	14.0	14.1	18.4	15.2	15.7	13.5	17.3	12.6	16.6	17.8	15.0	15.7
Metal barrels, drums, kegs, and pails	(3)	(3)	(3)	(3)	(3)	18.4	(3)	12.2	9.5	13.8	10.9	10.8	11.6	14.0
Steel springs	(3)	(3)	(3)	16.3	23.4	18.3	18.3	17.7	21.2	20.3	16.6	19.2	18.8	19.1
Bolts, nuts, washers, and rivets	11.0	11.8	13.2	12.0	13.6	13.7	12.1	12.4	12.8	10.3	11.8	13.1	11.9	12.9
Screw-machine products	12.7	9.7	6.2	9.6	16.7	15.4	11.4	11.1	9.9	9.3	10.9	13.4	10.4	13.4
Fabricated metal products, not elsewhere classified	8.5	8.9	9.0	8.8	12.4	9.9	10.0	10.8	10.3	11.3	12.9	13.3	11.3	10.4
Machinery (except electrical):														
Engines and turbines	6.0	5.1	7.4	6.2	7.5	7.2	8.0	7.4	7.9	7.8	7.5	7.1	7.6	7.3
Agricultural machinery and tractors	9.0	7.2	6.9	7.8	7.8	10.4	9.2	8.0	7.4	8.2	9.2	8.1	8.2	8.9
Construction and mining machinery	17.4	15.2	11.9	14.8	18.1	16.7	15.1	12.0	13.5	11.3	13.4	11.9	12.6	16.1
Metalworking machinery	8.5	9.1	8.5	8.7	10.0	8.7	8.4	8.4	8.5	7.9	8.5	7.8	8.3	9.0
Food-products machinery	8.6	8.7	7.5	8.2	12.6	13.3	13.6	10.3	12.6	9.5	11.0	8.1	10.8	12.5
Textile machinery	16.6	18.5	17.3	17.3	14.8	15.3	12.6	10.2	10.2	10.6	11.5	12.2	10.7	15.2
Miscellaneous special-industry machinery	14.3	14.4	10.2	13.0	12.7	12.2	13.2	12.7	12.0	13.1	13.3	12.4	12.8	12.8
Pumps and compressors	14.9	9.5	7.7	10.7	13.7	11.8	13.0	10.6	10.7	10.7	11.8	11.8	10.9	12.6
Elevators, escalators, and conveyors	22.1	15.2	18.8	18.9	17.2	17.3	15.0	13.2	13.5	13.8	11.8	10.7	13.1	17.3
Mechanical power-transmission equipment (except ball and roller bearings)	13.2	8.6	11.9	11.4	12.4	11.2	9.8	10.3	8.5	10.1	9.8	10.9	9.7	11.2
Miscellaneous general industrial machinery	10.7	8.7	8.7	9.3	11.8	11.0	11.1	11.3	9.9	11.7	11.0	10.8	11.0	10.8
Commercial and household machinery	6.7	5.7	4.7	5.7	6.3	6.3	5.8	5.7	5.6	5.6	5.2	5.3	5.6	6.0
Valves and fittings	15.9	9.6	12.0	12.5	12.2	14.9	13.2	11.3	12.7	13.7	13.2	13.5	12.7	13.1
Fabricated pipe and fittings	(3)	(3)	(3)	12.8	16.3	14.9	20.0	12.9	15.1	14.2	11.5	17.3	13.4	16.1
Ball and roller bearings	6.5	3.5	4.0	4.7	5.6	5.8	5.9	7.9	7.2	9.1	7.9	8.5	8.0	5.4
Machine shops, general	15.1	14.8	11.1	13.7	15.4	15.5	15.4	13.1	13.2	11.5	12.2	11.8	12.5	15.1
Electrical machinery:														
Electrical industrial apparatus	6.5	6.2	5.7	6.1	6.8	6.8	6.2	5.4	5.4	5.0	5.0	4.5	5.1	6.5
Electrical appliances	5.7	4.5	5.0	5.4	8.6	7.8	6.8	6.2	4.0	4.0	4.0	5.6	4.6	7.2
Insulated wire and cable	11.0	10.5	7.0	9.6	13.4	15.7	10.2	11.8	12.7	13.9	9.3	10.9	11.9	12.2
Electrical equipment for vehicles	3.2	1.9	1.9	2.4	2.7	2.4	2.6	2.6	3.6	3.0	3.4	3.3	3.1	2.5
Electric lamps (bulbs)	(3)	(3)	(3)	2.0	1.6	2.2	3.7	5.0	2.9	3.5	2.9	3.1	3.6	2.3
Radios and related products	5.5	4.0	3.1	4.2	5.3	4.7	4.7	4.1	4.3	3.4	4.1	4.1	4.0	4.7
Radio tubes	3.0	2.8	.9	2.2	3.0	2.6	2.3	2.6	2.1	2.4	2.1	1.7	2.3	2.5
Miscellaneous communication equipment	4.3	2.2	2.7	2.6	2.3	1.9	2.2	2.2	3.2	2.5	2.9	2.1	2.6	2.2
Batteries	14.4	14.6	15.0	14.7	13.1	13.3	10.1	11.5	13.6	10.6	10.8	13.2	11.6	13.3
Electrical products, not elsewhere classified	(3)	(3)	(3)	3.6	5.6	5.4	4.2	3.2	7.0	5.3	6.4	5.2	5.4	4.9
Transportation equipment:														
Motor vehicles, bodies, and trailers	5.5	5.0	4.0	4.8	5.4	5.2	4.6	4.8	5.0	4.1	4.5	4.2	4.6	5.0
Motor-vehicle parts and accessories	6.4	4.9	3.8	4.9	6.0	5.7	4.7	5.1	5.8	5.7	5.2	5.5	5.4	5.4
Aircraft	2.8	2.1	2.2	2.4	2.7	2.8	2.8	2.9	3.1	2.9	2.7	2.4	2.9	2.7
Aircraft parts	4.3	3.9	4.0	4.0	4.6	3.9	3.9	3.7	4.1	4.0	4.4	4.1	4.1	4.1
Shipbuilding and repairing	16.1	14.9	15.1	15.3	16.3	17.6	16.3	14.3	16.5	17.2	15.8	15.3	15.9	16.5
Boatbuilding and repairing	(3)	(3)	(3)	28.1	27.1	31.3	28.8	23.5	28.3	33.7	28.6	27.5	28.7	28.8
Railroad equipment	5.8	6.5	6.1	6.1	6.8	7.1	7.0	6.4	7.9	7.4	7.1	7.1	7.2	6.8
Instruments and related products:														
Scientific instruments	2.9	4.2	3.2	3.5	3.9	3.6	3.0	3.4	3.8	5.2	3.4	5.1	3.9	3.5
Mechanical measuring and controlling instruments	5.4	6.1	7.7	6.4	8.6	7.1	5.7	5.4	5.2	5.3	6.5	5.7	5.6	6.9
Optical instruments and lenses	(3)	(3)	(3)	4.4	6.3	6.3	5.1	3.0	3.9	4.4	4.9	4.5	4.1	5.5
Medical instruments and supplies	11.5	9.8	9.9	10.4	10.4	7.2	8.4	7.6	5.6	8.2	8.2	5.6	7.4	9.1
Photographic equipment and supplies	3.6	5.2	7.3	5.4	6.6	6.5	5.5	6.6	6.0	5.9	4.6	5.6	5.7	6.0
Watches and clocks	(3)	(3)	(3)	4.1	4.3	5.1	3.1	4.3	5.6	6.1	5.2	6.4	5.3	4.1
Miscellaneous manufacturing:														
Paving and roofing materials	(3)	(3)	(3)	10.4	13.1	12.0	7.2	7.3	10.7	8.0	10.2	10.1	9.1	10.7
Jewelry, silverware, and plated ware	3.6	5.2	3.2	3.9	6.2	11.3	7.1	8.5	7.3	5.9	6.0	6.8	7.0	7.3
Fabricated plastics products	17.9	14.2	17.4	16.5	18.1	14.0	18.2	15.3	11.8	13.9	16.2	14.7	14.3	16.5
Miscellaneous manufacturing	14.1	13.2	10.2	12.6	14.5	13.0	12.1	11.4	13.2	10.6	12.4	12.4	11.9	13.1
Ordnance and accessories	3.2	3.5	2.9	3.2	2.9	3.0	4.3	3.5	3.9	3.7	3.7	3.2	3.6	3.3

[1] The injury-frequency rate is the average number of disabling work injuries for each million employee-hours worked. A disabling work injury is any injury occurring in the course of and arising out of employment, which (a) results in death or permanent physical impairment, or (b) makes the injured worker unable to perform the duties of any regularly established job which is open and available to him throughout the hours corresponding to his regular shift on any one or more days after the day of injury (including Sundays, days off, or plant shutdowns). The term "injury" includes occupational disease.

[2] Rates are preliminary and subject to revision when final annual data become available.

[3] Insufficient data to warrant presentation of average.

NOTE: These data are compiled in accordance with the American Standard Method of Recording and Measuring Work Injury Experience, approved by the American Standards Association, 1954.

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